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**The Impact of Action Strategies on Entrepreneurial Success of
Emerging/Start-up Entrepreneurs in the Western Cape**

by

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Thesis presented to the University of Cape Town,

for the Degree of Doctor of Philosophy.

Graduate School of Business, University of Cape Town

Submitted December 2011

DECLARATION

I, Fawzy Basardien, do hereby declare that this dissertation titled **THE IMPACT OF ACTION STRATEGIES ON ENTREPRENEURIAL SUCCESS OF START-UP ENTREPRENEURS IN THE WESTERN CAPE** is my own unaided work, save to the extent indicated in the Acknowledgements, References and comments included in the body of the Dissertation.

I further declare that this Dissertation, or any part of it, has not been, or is to be, submitted to any other University for degree purposes. The information used in this Dissertation has been obtained by me while a registered student at the University of Cape Town, and while on the SANPAD Doctoral Research Scholarship (a research scholarship awarded by the Netherlands Government).

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Fawzy Basardien

..... **day of Dec, 2011**

University of Cape Town

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“I am the Master of my fate. I am the Captain of my soul.” – William Henley

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ABSTRACT

Research in the field of financial management of start-up SME's in South Africa has suggested that many of these businesses could benefit from the implementation of rudimentary financial management practices such as improved access to finance and greater cash flow stability (GEM, 2003). Studies have indicated that high performing entrepreneurs have benefited from Complete Planning and Critical Point Planning Strategies as well as higher levels of Entrepreneurial Orientation (Krausse, 2005). Studies pertaining to the latter have focused on understanding or forecasting the entrepreneurial act in relation to success or failure and have been able to define more accurately, multiple dimensions of strategy.

The purpose of this study was to examine the use of psychological factors such as strategy process characteristics and entrepreneurial orientation in explaining success in entrepreneurship research in a cross-sectional sample of 192 entrepreneurs in the Western Cape. This study examines mediating and moderating effects of entrepreneurial actions and strategies such as complete planning, critical point planning, reactive, and opportunistic strategies, as well as entrepreneurial orientation on the financial management practices-entrepreneurial success relationship. This study demonstrates the importance of the aforementioned personal strategies and how they could impact on the overall strategy-success relationships of start-up entrepreneurs.

Results from the study indicate that high levels of entrepreneurial orientation ('attitude') are desirable because entrepreneurial orientation influences the perception of situations and the extent to which formal strategies are formulated, developed and implemented. Strategy process characteristics have an association with the planning strategy through which the entrepreneur implements an action. This study suggests that while content strategies such as financial management are significant in ensuring the sustainable success of SMEs, the appropriate actions, orientations and strategies of the entrepreneur are equally significant.

The contribution of the psychological perspective to entrepreneurship research is threefold:

Firstly, the study design allows for analysis of entrepreneurial success determinants, which are rare in entrepreneurship research (Rauch and Frese, 2000).

Secondly, the study builds onto the psychological approach and success frameworks by investigating mediating and moderating effects of entrepreneurial actions and strategies. Previous findings indicate that entrepreneurs regulate their strategy process characteristics in response to their business performance.

Finally, this study emphasizes the role of the founder/owner/manager, particularly in start-up SMEs where subordinate decision-makers and the organizational structure are less important than in larger businesses. As main actors in the business, entrepreneurs make all important decisions, particularly financial decisions. This study suggests that specific entrepreneurial actions and orientations may improve financial management in start-up SMEs. The thesis demonstrates the usefulness of psychological approaches in entrepreneurship research and offers value in obtaining a better understanding of the entrepreneurial process, particularly relating to success.

KEY WORDS – Strategy Process Characteristics, Entrepreneurial Orientation, Financial Management Practices, SME's, Complete Planning Strategy, Critical Point Planning Strategy, Opportunistic Planning Strategy, Reactive Planning Strategy, Start-up/Emerging Entrepreneurs/SMEs.

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION: RESEARCH FOCUS AND MOTIVATION

The Global Entrepreneurship Monitor (2005) indicated that South Africa has the lowest rate of total entrepreneurial activity compared to similar economies. Another finding suggests that South African start-up businesses are least likely to grow into mature firms (Kotze and Smit, 2008). This has serious implications for future economic growth, and for the South African government's growth strategy, particularly as it is expected that small business development could create two and a half million jobs by 2020 (Grundling and Kaseke, 2010).

Towards the end of the 20th century, entrepreneurship gained increased recognition among economists as a significant driver of improvement in societal welfare and social development (GEM, 2009). Globally, governments have accepted this view and extended an array of support to facilitate transformation and contribute to economic growth, including motivating individuals, businesses and related stakeholders to identify and develop new opportunities (Blenker, Dreisler and Kjeldsen, 2008).

Entrepreneurship has attracted the interest of researchers from various disciplines, attempting to obtain greater understanding of the importance of small business growth for economic growth and personal wealth (e.g. Autio, 2005; Kirzner, 1997). Closely associated with successful business growth, is budgeting and financial planning. However, entrepreneurship also involves special kinds of decision-making processes. It has been argued that the success of a business depends on the entrepreneur's personality and that the failure of a business involves not only costs associated with financial loss, but also psychological costs of failure (Caliendo and Kritikos, 2008).

Hellriegel, Jackson, Slocum, Staude, Amos, Klopper, Louw and Oosthuizen (2008) argue that managerial competencies, such as knowledge, skills, attitudes and personal qualities, are important determinants of accessing finance. Against this background, approaches toward understanding entrepreneurship should be directed towards understanding the psychological factors involved in successful entrepreneurship (Hellriegel *et al.*, 2008).

This study involves psychological strategy research and focuses on the impact of *strategy process characteristics* and *entrepreneurial orientation* on the content strategy (financial management practices) - entrepreneurial success relationship of start-up/emerging¹ entrepreneurs in the Western Cape. Strategy process characteristics and entrepreneurial orientation form an integral part of studying strategy processes of entrepreneurs and how specific strategies such as financial management practices are implemented. Chapter One presents key definitions, an overview of entrepreneurship in the Western Cape, concepts used, and the research methodology employed.

1.2 DEFINITIONS OF ENTREPRENEURSHIP

The literature reveals the diversity of meaning of the concept of entrepreneurship and highlights the multi-faceted nature of this phenomenon. It is generally acknowledged that the definitions of entrepreneurship were born within the framework of neoclassical economics (Herbert and Link, 1989). Definitions commonly include concepts such as wealth creation and economic growth as key driving components of entrepreneurship (Spencer, Kirchoff and White, 2008; Wennekers and Thurik, 1999). Herbert and Link (1989) have established taxonomies of entrepreneurship. These taxonomies are primarily linked to the German tradition in economics and the work of Schumpeter (1954), the Chicago tradition represented by Knight (1921) and the Austrian tradition associated with the work of Kirzner (1985).

Schumpeter (1934) not only associated entrepreneurship with innovation, but also showed the importance of entrepreneurs in contributing to economic development as a result of innovation. Baumol (1993) classified entrepreneurs into two categories, namely, the entrepreneur-business organiser and the entrepreneur-innovator. The entrepreneur business organiser is representative of the classical definition of entrepreneurship and relates to definitions by Kirzner (1983), Knight (1921) and Say (1971). The classical definition defines the entrepreneur as someone who takes risks and ventures into the unknown and is rewarded by profits and capital gains as a result of the activities that were started. The entrepreneur-innovator relates to the neo-classical

¹Entrepreneurs and SMEs (small, medium and micro enterprises) are described as ‘start-up/emerging’ in this study where they are composed of historically disadvantaged South Africans or originate in historically disadvantaged communities (townships, informal settlements and rural areas). The distinction is between such ‘start-up/emerging’ SMEs and established formal SMEs (mostly urban as well as those who benefited from the apartheid governmental policies).

definition that is based on the assumption that the entrepreneur is a ‘change agent’ and attempts to bring about innovation and economic development.

An entrepreneur is defined as someone who, despite risk and uncertainty, creates new businesses for the purpose of achieving profit and growth by identifying opportunities and gathering the necessary resources to capitalize on those opportunities (Scarborough and Zimmerer, 2003). McClelland’s (1971) definition of entrepreneurship suggests that an entrepreneur exercises control over production not just for personal consumption, but, in his view, entrepreneurship could also exist within an organisational context. For example, managers working in large-scale enterprises could also be regarded as entrepreneurs.

During the past decade entrepreneurs have created several million new businesses globally. The creation of new businesses by entrepreneurs has been found to be essential for job creation and economic growth and is actively encouraged by the South African government (Hellriegel *et al.*, 2008).

Small businesses operate within both the formal and the informal sector in the South African context (Krauss, Frese, Friedrich and Unger, 2005). Small businesses operating in the formal sector in South Africa range in size from micro businesses to medium-sized businesses. Micro and small businesses often operate in the informal sector and in both sectors may have as few as one employee. Medium-sized businesses are usually formally registered and employ up to fifty employees. Formally registered businesses have had greater access to finance and greater access to business support services supplied by government.

From the definitions described above it is evident that the definition of “emerging entrepreneurs and emerging SMEs” can be varied. In this study entrepreneurs and SMEs refer to individuals and enterprises respectively. These entrepreneurs and SMEs are from disadvantaged backgrounds and have been operating a business for at least one year. In addition, these entrepreneurs are involved extensively and operationally in the business. Furthermore, the definition excludes entrepreneurs operating in the informal sector due to the fact that entrepreneurs in the formal sector have greater job creation potential.

1.3 ENTREPRENEURSHIP IN SOUTH AFRICA

Prior to 1994, the economic policies of the South African government focused on the development and expansion of large corporations in commercial and industrial areas. The democratization process in 1994 resulted in the government changing its economic policies and focusing on broader economic participation of all its citizens, especially those in previously disadvantaged communities and rural areas. Government economic policies have since focused on promoting and driving entrepreneurship through sustainable business development.

Historically, South Africans were educated and equipped to enter the market as employees, not as entrepreneurs (Louw, Van Eeden, Bosch and Venter, 2003). However, the business environment is continually changing and ‘a job for life’ is no longer applicable to most people as businesses seek to become more efficient and more profitable.

Although the government has introduced Black Economic Empowerment (BEE) as a policy intervention aimed at redressing economic and social inequities, few “black” South Africans have benefitted from such policies, particularly relating to entrepreneurship opportunities, largely as a consequence of the fact that “black” South Africans were seriously disadvantaged during apartheid and their participation in the economy was severely limited (Andrews, 2008).

In South Africa, all social and economic indicators highlight the importance of economic development and entrepreneurship. South Africa needs to create an entrepreneurial climate, particularly for young potential entrepreneurs, and to facilitate the development of sustainable businesses. Thus, the introduction of the National Small Business Act in 1996 represented an attempt to foster entrepreneurship and SMEs as a vital part in growing the South African economy, with the emphasis on creating jobs and economic growth (Andrews, 2008).

The government has since initiated several support programmes to facilitate an entrepreneurial framework and to fast-track an increase in the number of start-up businesses (Moss, 2007). All the South African governments since 1994 have focused on creating jobs and driving entrepreneurship in order to develop the economy.

The promotion of SMEs is the focus of considerable policy interest in South Africa and in its ‘White Paper on National Strategy for the Development and Promotion of Small Business in

South Africa'; the South African government explicitly identified the promotion of SMEs as a policy imperative for addressing the challenges of unemployment and poverty (Moss, 2007). This perspective is underpinned by the fact that, if countries are to grow out of poverty and unemployment and create a more prosperous future, particularly countries in Africa, they will need more SMEs as well as an increase in migration of existing SMEs into larger enterprises.

The government has implemented various measures and strategies in order to address the high failure rate of SMEs, including establishing Real Enterprise Development (RED DOOR), the Small Enterprise Development Agency (SEDA), Khula, Ntsika, National Empowerment Fund, the Umsobomvu Youth Fund and the Accelerated and Shared Growth Initiative for South Africa (ASGISA) strategy.

ASGISA focuses on legislative and regulatory conditions, access to finance, access to training, and access to marketing and procurement. The first purpose of ASGISA is to ensure an increase in public expenditure in order to promote the development of SMEs and to address broad-based black economic empowerment issues such as access to finance and preferential procurement (DTI, 2006). Although the policy of ASGISA is not designed to directly assist the entrepreneur in South Africa, it does facilitate assistance to emerging entrepreneurs through preferential procurement policies and by facilitating the buying of goods and services from these entrepreneurs to help grow and sustain these businesses.

Traditional research in entrepreneurship points to a systemic relationship between a country's level of economic development and its level and type of entrepreneurial activity (GEM, 2008). Gross Domestic Product (GDP), the total annual production within a country's geographic boundaries, is an indication of the country's economic strength (Temba, 1999). Countries with similar per capita GDP rates tend to exhibit similar levels of entrepreneurial activity, while significant differences exist across countries with different per capita GDP levels.

Although the economy of South Africa is relatively stable, over the past twenty years the economy's overall growth has been sluggish, resulting in low levels of job creation. According to Friedrich (2005), the average annual economic growth rate for South Africa over the past ten years was 2.97%. It has been suggested that GDP levels of 7% need to be achieved in order to make a significant impact on job creation (Frese, Krauss and Friedrich, 2000).

At low levels of per capita GDP, the environment is characterised by the prevalence and emergence of many very small enterprises. As per capita income increases, industrialisation and economies of scale allow larger and established firms to satisfy the increasing demand of growing markets and to increase their relative role in the economy (Temba, 1999). At low levels of economic development, necessity-driven entrepreneurship is particularly high as large-scale enterprises fail to produce sufficient jobs in the economy (GEM, 2008). Conversely, as the economy grows and improves, necessity-driven entrepreneurship tends to slow down while opportunity-based entrepreneurship increases.

Since, by definition, entrepreneurship involves a willingness to take advantage of unexploited opportunities, in high income economies, a growing services sector, enhanced differentiation of consumer wants and accelerated technological development are providing entrepreneurial businesses with unprecedented opportunities. The rate of aggregate entrepreneurial activity depends on the demographic, cultural and institutional characteristics of each country. Regardless of the level of development and firm size, entrepreneurial behaviour remains a crucial engine of innovation and growth for the economy and for individual companies.

1.4 ENTREPRENEURSHIP IN THE WESTERN CAPE

The Western Cape Province is characterized by a large proportion of informal businesses operating outside the mainstream economy. The aim of the national and local government is to promote the development and integration of informal businesses into the mainstream economy of the region through intervention strategies (Department of Trade and Industry, 2008).

To facilitate the development of the SME sector, agencies such as Real Enterprise Development (RED DOOR) were established in the Western Cape by the provincial government. The primary policy objectives of RED DOOR are to:

- provide supportive policy to increase the participation rate of South Africans in starting and running small businesses;
- support the survival and growth of already established businesses; and
- reduce historical inequities.

In order to achieve the institutional policy objectives of agencies such as RED DOOR, GEM (2003) proposes two interventions, namely:

- Increase the rate of new business formation through increasing the long-term supply of people with the right skills and mindsets needed to succeed in owner-managed businesses and,
- Increase appropriate information available to people thinking of starting a business so that they are able to make informed rational decisions.

At present a number of RED DOOR outlets in the Western Cape provide accessible and affordable business support services. A wide variety of advisers and service providers offer free, subsidized and fully billed information, advice and services through RED DOOR to those who wish to establish businesses or to make their enterprises more competitive (Kaplan, 2007).

According to the Global Entrepreneurship Monitor (GEM) reports, there are significant differences between various regions in South Africa in relation to infrastructure, wealth, markets and entrepreneurial activity. Many of the reasons for the disparities that exist regionally are related to the inequalities that were created during the reign of the Nationalist government, when the majority of South Africans were denied access to education and opportunities (Maas and Herrington, 2006).

The GEM research reports indicate that the Gauteng province is the most entrepreneurial in terms of overall entrepreneurial activity as well as opportunity-based entrepreneurship. Albeit that it is widely acknowledged that Gauteng attracts a much higher level of economic activity than the other provinces, previous government policies nonetheless impacted on the entrepreneurial climate and new firm creation.

Gauteng and the Western Cape, as the more economically active provinces in the country, are major recipients of migration from the other provinces. The impact of such migration has had an immediate impact on Gauteng where necessity-based entrepreneurship has outstripped opportunity-based entrepreneurship for the first time (GEM, 2008). Conversely, the Western Cape region has higher opportunity-based entrepreneurship than necessity-based entrepreneurship. The entrepreneurship potential of the Western Cape was confirmed in a report on entrepreneurship advantages of global cities (Aces and Farmington, 2006). This study

indicated that Cape Town has higher entrepreneurial activity compared to the national rate. Cape Town's opportunity-based entrepreneurship is 190% greater than the national average, compared to Johannesburg's 60% (GEM, 2008).

There is considerable evidence to suggest that one of the main problems associated with government programmes to support small businesses is lack of awareness about the programmes. 57% of small businesses surveyed in Johannesburg and 70% in the Western Cape were not aware of such programmes (Berry, Cassim, Kespers and Rajaratnam, 2002). In a survey of 792 formal small businesses in Johannesburg, the majority of businesses had never heard of services offered by the DTI, Khula or Ntsika (Berry *et al.*, 2002). In a survey of 400 "black" businesses that had applied for finance, 54% had never heard of Khula's products (Foxcroft, 2002). The lack of effective communication and promotion of existing and new support initiatives impacts on the ability of SMEs to innovate and to grow sustainable businesses (Fatoki and Garwe, 2010).

1.5 ENTREPRENEURSHIP EDUCATION

According to the Global Entrepreneurship Monitor (GEM), the entrepreneurial activity rate in South Africa is well below those of similar developing countries even though owner-managed businesses in the Western Cape, as well as South Africa in general, are an important component of the economy (GEM, 2003). South Africa continues to have one of the lowest entrepreneurial activity rates in Africa despite the fact that it is the most developed economy on the continent. It has been pointed out that lack of education, knowledge and entrepreneurial skills are major limiting factors in South Africa (Maas and Herrington, 2006).

Apartheid and the policies of the National Party government denied the majority of the population access to a good education. The legacy of such policies has been that a large proportion of people are not only unskilled and uneducated (Rwigema and Venter, 2004), but suffer serious deficiencies in education-related technical skills, entrepreneurial skills and general business management competencies.

After twelve years of Global Entrepreneurship Monitor research, GEM reports that lack of education continues to plague most South Africans. The major challenges in the South African context therefore are the development of people and the transfer of skills (GEM, 2009). Research raises issues about the types of entrepreneurship education and training approaches that may impact on entrepreneurial skills and knowledge (GEM, 2009). Of concern is the fact that studies indicate that the SME training providers, such as schools, colleges and universities, concentrate more on conventional training than entrepreneurial training (Nieman, Hough and Nieuwenhuizen, 2003). Thus despite indications in research findings that experiential learning is more effective for developing entrepreneurial skills and attitudes than traditional and formal classroom-based methods of learning, the status quo remains (European Commission, 2008).

The challenge presented by the lack of skilled people in South Africa could impact directly on the country's competitiveness in relation to other countries. According to Rwigema and Venter (2004), South Africa has a workforce ratio of skilled to unskilled workers of 1:5 compared with 1:2 in developed countries. This phenomenon has implications for the country's social growth, economic development and global competitiveness.

GEM (2003) emphasized that access to education is critical with a focus on specific and critical skills such as financial literacy, record-keeping and marketing. GEM (2006) indicated that individuals with higher education were more inclined to start a new business venture and progress past the start-up phase. This emphasises the importance of access to education and entrepreneurial programmes in order to transfer much-needed skills. Despite the need for entrepreneurship education in order to induce more start-up businesses, it appears that much remains to be done in order to make entrepreneurship education more accessible.

Of the several entrepreneurial training programmes that have been started, significant limitations present challenges to achieving targets and outcomes. Friedrich (2005) argues that there is a gap between the perception of training providers and entrepreneurs in terms of training needs. Most training programmes tend to focus on a wide range of business skills when these skills are more necessary to run larger organisations than a small enterprise (Nieman *et al.*, 2003). Although the training needs of small businesses are different compared to larger organisations, training providers in South Africa persist in employing a one-size-fits-all approach.

1.6 THE DEVELOPMENT OF ENTREPRENEURSHIP THEORY

1.6.1 CONTRIBUTION OF ECONOMIC THEORIES ON ENTREPRENEURSHIP

It is often mentioned that entrepreneurship theory originated in mainstream economic theory. Cantillon (1755) and Say (1803) focused on the managerial and business aspects of operating a business, business development and business management. Their focus was largely on how the process of an individual seeking out business opportunities, obtaining resources and attempting to seek optimal yields on invested capital, fits into economic models.

Say (1803) adopted a more focused interest in the role of entrepreneurs and their relationship to economic development, while Cantillon viewed entrepreneurs as risk takers driven by profits. Schumpeter (1954) was the first to associate entrepreneurs with innovation and agencies of change. Schumpeter opined that the essence of entrepreneurship was the exploration of new opportunities and its contribution to economic development. Contemporary perspectives such as Wong, Ho and Autio (2005) affirm the fact that new firm growth and creation are vital in order to promote innovation and the “creative destruction process” in an economy. At this stage it can already be seen that perspectives converge on the fact that entrepreneurship is vital to economic development and innovation.

Although entrepreneurs and entrepreneurship are mentioned in early economics, entrepreneurship was very seldom, if at all, brought into classical economic models (Nieman *et al.*, 2003). Economists generally perceived entrepreneurs from two perspectives, namely, entrepreneurs as business propagators and entrepreneurs as innovators. These early theories of entrepreneurship focused on the distribution of income, the role of the entrepreneur as an input factor and the innovation function (Nieman *et al.*, 2003). However, they failed to establish a comprehensive theory on entrepreneurship. Furthermore, these approaches discounted non-quantifiable models in explaining the dynamics of entrepreneurship.

In order to better understand the dynamics of entrepreneurship, it is argued that many studies use quantitative research methods and that future studies should make more use of qualitative methods in order to obtain a more balanced perspective, particularly on aspects related to the

progress of capitalism in the modern economy and its corresponding impact on promoting entrepreneurship (Herrington, Kew and Kew, 2009).

1.6.2 CONTRIBUTION OF BEHAVIOURIST THEORIES ON ENTREPRENEURSHIP

The behaviourist approach focuses on understanding personality and traits and how they relate to aspects such as the motivation for starting a business. The behaviourists included the perspectives of psychologists, sociologists and psychoanalysts in explaining the behaviour of entrepreneurs. One of the first scientists to explain entrepreneurship was Max Weber (1930), who essentially viewed entrepreneurs as innovators and independent business people.

McClelland (1971) viewed entrepreneurship from an organisational perspective and studied the motivation of managers from large organisations in relation to organisational performance. In his view an executive in a large enterprise could also be regarded as an entrepreneur. One of the major shortcomings of McClelland's approach is that he did not make a connection between the behavioural aspects, such as the motivation of an individual, and starting a business. The main focus of the behaviourist approach was to define entrepreneurs and to explain the characteristics of entrepreneurship.

Although conventional theories could not provide adequate associations between behaviour and start-up businesses, they provided much insight into the profiling of entrepreneurs. Contemporary research has emphasized that the development of particular skills, such as inner control, risk-taking, innovativeness, change orientation, persistence and leadership, can be distinguished between entrepreneurs and managers (Hisrich, 2000). Other studies have shifted focus from large organisations to SMEs as the unit of analysis, where the interest is in how entrepreneurs develop individual competencies to run successful enterprises (Unger, Keith, Hilling, Gielnick and Frese, 2009).

Entrepreneurship is in its infancy from an academic-science perspective and a large academic community beckons to express new views on the subject through scientific journals and conferences. However, to date, entrepreneurship theory has lacked the development of rigorous conceptual models that offer better explanations of success in entrepreneurship. In the field of

social science, it is imperative that a conceptual framework explains and predicts a set of empirical phenomena that is not explained by existing conceptual frameworks.

While the economists have associated entrepreneurs with innovation and major drivers of economic development, behaviourists have explained entrepreneurship through personality characteristics and non-quantifiable models. However, neither of these approaches has been able to adequately explain entrepreneurship from a multi-disciplinary perspective.

1.6.3 FINANCIAL MANAGEMENT PRACTICES IN EMERGING SMES

More recent research into the financial administration of SMEs has suggested that many of these businesses could benefit from the implementation of rudimentary financial management practices that might result in these businesses improving their chances of accessing finance from banks (Fatoki and Akinwumi, 2010). The two most important sources of external finance are equity and debt (Demirguc-Kunt, Maksimovic, Beck and Laeven, 2006).

Furthermore, since banks exercise a very low loan approval rate for start-up businesses, capital is a very valuable resource to SMEs and specific principles of financial management could improve financial stability of SMEs. However, the successful implementation of such procedures should be influenced by entrepreneurial attitudes and skills.

Research examined the linkage between financial management and the overall financial health of SMEs (GEM, 2003). The research examined the following:

- Aspects of financial administration that were deficient;
- The extent of these deficiencies;
- The impact that these deficiencies had on the financial health of the business;
- The extent to which these deficiencies have impacted on the ability of the entrepreneur to secure bank finance.

This research (GEM, 2003) has suggested a cash flow-centred model of the financial performance of an SME, where the probability of running out of cash can be significantly reduced by the following measures:

- Financial administration and documentation;
- Cash flow management; and
- Proactiveness in building a reputation for reliability and integrity of the business in order to obtain better trading terms.

The importance of this thesis study is that it emphasizes the importance of basic financial management principles for SMEs. Other studies (see Demirguc-Kunt *et al.*, 2006; Fatoki and Odeyemi, 2010) have also indicated that operational failures of SMEs have been attributed to the following:

- 75% of SMEs failed to use financial information to determine shortfalls or implement the necessary financial adjustments; and
- 30% of SMEs failed to produce monthly financial reports.

The study further suggests that start-up entrepreneurs are usually unprepared when applying for bank finance (GEM, 2003). The state of unpreparedness refers to the lack of a well thought out business concept that defines the amount of funding needed, cash flow management, collateral, management summary and pro-forma financial information.

It is clear that financial management practices is an important factor for ensuring effective cash flow management, improved access to finance and generally to improve financial stability. Furthermore, a large number of entrepreneurs fail to use financial information appropriately, particularly for financial planning such as budgeting. It is therefore not surprising that financial management is often cited as one of the main factors related to failure. Therefore, it has been chosen as an important variable in this research study.

1.6.4 PSYCHOLOGICAL RESEARCH IN ENTREPRENEURSHIP

Most studies in entrepreneurship are based on the firm and not on the individual (Van Gelderen, Frese and Thurik, 2000). Hart and Barnbury (1994) have criticised the one-sided nature of studies aimed at studying strategies at the organisational level of analysis. This view was supported by Rajagopalan, Rasheed and Datta (1993), who have suggested studying entrepreneurship at the individual and psychological level of analysis. The psychological

approach is based on the dominant influence of the owner and how the owner operates the business. By making the individual the unit of analysis rather than the organisation, the psychological approach looks at the contribution of attributes, actions and competencies of entrepreneurs in relation to successful businesses.

Hacker (1994) suggests that the strategies of entrepreneurs can be conceptualised as a sequence of actions to achieve a goal. Similar studies have been conducted by Frese and Zaph (1994), who conceptualised strategies as strategy process characteristics, consisting of complete planning strategies, critical point planning strategies, opportunistic planning strategies and reactive planning strategies. This approach is distinctly different from other approaches that use personality as a predictor of success, and instead looks at individual actions of entrepreneurs. Similarly, Epstein and O'Brien (1985) indicated that the focus was on studying the entrepreneur's actions and not personality variables.

In the last decade much of the research focused on a combination of entrepreneurial actions as well as personality in relation to performance. Van Gelderen (2000) has indicated that personal strategies of individuals are related to performance and the environment. In this approach, the personalized strategies have been operationalized into a sequence of behavioural actions. The use of personalized strategies marked a unique contribution to the psychological approach in entrepreneurship. This study indicated that entrepreneurs that employ lower level strategies, such as reactive strategies, tend to produce lower performances than entrepreneurs using higher level strategies, such as complete planning strategies. Importantly, Van Gelderen's study found an association between entrepreneurial success and the implementation of more sophisticated planning techniques and strategies, while failure was associated with increased pressure and poor strategies.

My study also draws on the work of Frese (2000), who has developed a general framework of entrepreneurial success where strategies and actions are studied as predictors of success, and strategies and actions are perceived as influenced by goals. In terms of this approach, strategies and actions have mediated the relationship between human capital, environment, personality and success. The actions of the entrepreneur are the dominant variable and the environment does not shape the entrepreneurial actions and strategies.

More recent studies have looked at the role of deliberate practice, with cognitive abilities and education as antecedents, and how this impacted on performance (Unger, Keith, Hilling, Gielniek and Frese, 2009). Deliberate practice studies focus on individualized self-regulated efforts and the impact on improving performance. Recent studies have exclusively looked at the business owner as the unit of analysis in entrepreneurship research (e.g. Baum and Locke, 2004; Davidsson and Honig, 2003; Frese and Rauch, 2007). Organisational researchers have also investigated the impact of the individual on organisational outcomes, such as learning orientation by individuals in an organisational context (Baum, Frese, Baron and Katz, 2007).

Therefore, the use of psychological factors in entrepreneurship research is important since it looks at the strategy process and how specific strategy content is developed and implemented. Strategy content can relate to functional management elements important for a business such as marketing, finance, human resource strategies etc. In this study strategy content relates to financial management practices and financial administration.

1.7 RESEARCH METHODOLOGY

1.7.1 RESEARCH PROBLEM

It is part of the legacy of apartheid that the majority of people in South Africa are poorly educated, often being employed as unskilled, low-paid labour. The policies of the Nationalist government also impacted significantly on the confidence and the capacity of potential entrepreneurs to start new businesses (Orford, Wood, Fischer, Herrington and Segal, 2003).

The majority of people that start new businesses are driven by the prevailing economic situation and start new businesses out of necessity. This survivalist trend is acknowledged in the GEM reports, which have confirmed that necessity-based entrepreneurship outstrips opportunity-based entrepreneurship rates. These necessity-driven entrepreneurs often do not have previous entrepreneurial experience and are not sufficiently skilled to operate a business successfully.

Financial management and financial literacy are often regarded as a major problem for start-up entrepreneurs and challenges in those areas have been identified as among the major reasons

for stifling business growth and business failure of start-up entrepreneurs (Fatoki and Akinwumi, 2010). The lack of financial management skills tends to be accompanied by a lack of basic cash flow projections and costing strategies. The resultant high failure rates of start-ups can cause serious challenges to government interventions, such as depleted budgets and the loss of large amounts of start-up capital, with negative effects on the economy and on the confidence of entrepreneurs.

Evidence suggests that education and lack of knowledge as well as the lack of entrepreneurial skills are major limiting factors for SME development (Maas and Herrington, 2006). Traditional interpretation also suggests that cognitive skills can lead to better knowledge which can in turn lead to better performance. However, Frese and Rauch (2007) suggest that action strategies and action planning should be considered in this traditional interpretation. It is further pointed out that cognitive ability is resistant to interventions, while action strategies and action planning can be taught and should have greater practical benefits (Frese and Rauch, 2007).

This study will focus on psychological research and examine the mediating and moderating effects of action strategies on the financial management-entrepreneurial success relationship.

1.7.2 DELIMITATIONS

This study excludes the examination of reciprocal determinism effects between action strategies (entrepreneurial orientation and strategy of process characteristics) and entrepreneurial success. This study also excludes the examination of interaction effects of entrepreneurial orientation and strategy process characteristics in relation to financial management practices. The reason for such exclusions is due to the fact that a longitudinal study would be a better suited research design because entrepreneurs tend to adapt and regulate their action strategies in relation to business performance.

1.7.3 THE AIMS OF THE RESEARCH

Strategy process characteristics represent action templates used by entrepreneurs and consist of complete planning strategies, critical point planning strategies, opportunistic planning strategies and reactive planning strategies (Frese and Zaph, 1994). This study proposes to determine the mediating and moderating impact of entrepreneurial actions and strategies (strategy process characteristics and entrepreneurial orientation) on the relationship between financial management practices and entrepreneurial success of start-up entrepreneurs in the Western Cape.

1.7.4 THE IMPORTANCE OF THE STUDY

By studying success factors in entrepreneurship, this study will directly impact on the following areas.

Firstly, the study will have an impact on entrepreneurship theoretical development, particularly with regard to action strategy theory and contribute toward understanding strategy-success relationships in entrepreneurship.

Secondly, this study will examine the importance of action strategies (strategy process characteristics and entrepreneurial orientation) and how they could augment the effectiveness of content-based strategies, such as financial management practices.

Thirdly, the study directly impacts on government-led SME support programmes, where it could contribute to a better understanding of entrepreneurial actions and processes.

Fourthly, this study impacts on entrepreneurial education and the development of entrepreneurship training. Entrepreneurship education has traditionally focused on business management and technical skills rather than entrepreneurial skills. It is also shown that academic business training and education often do not meet the real needs of entrepreneurs. Furthermore, formal entrepreneurship education has limitations as a great deal of entrepreneurship learning takes place through experiential learning (Botha, 2006).

1.7.5 RATIONALE/ BACKGROUND

Poverty is a major constraint on sustainable growth in South Africa and a more equitable income distribution is needed to achieve sustainable economic growth. Despite being recognised as a driver of economic growth in developing economies, the entrepreneurial throughput rate in South Africa is comparatively low, as frequently reported in GEM reports (GEM, 2008; GEM, 2009). The high failure rate in the SME sector requires a better understanding as to why these businesses fail. Most studies of entrepreneurship tend to focus on the firm level and offer very little assistance toward understanding entrepreneurship at the individual level. Analysing success at the individual level is critical for developing interventions that could assist start-up businesses with appropriate support.

It is accepted that financial management practices impact on financial health and the ability to raise finance (Fatoki and Akinwumi, 2010). But this constitutes but one dimension of entrepreneurial skills. In South Africa, “black” entrepreneurs’ ability to start and sustain new businesses is hampered by historically disadvantages, the lack sufficient capital and a history of low success rates of obtaining finance from risk-averse banks.

It is imperative to understand the entrepreneur’s mindset as well as psychological entrepreneurial strategies (for example, strategy process characteristics) in order to gain a better understanding of entrepreneurs. For example, in order to understand innovation by entrepreneurs, one needs to understand the motivation and attitude (such as entrepreneurial orientation) of the entrepreneur, and what determined or influenced them. For example, the motivation, attitude and orientation of an entrepreneur employing one employee can be expected to be considerably different to an entrepreneur employing ten employees, and to influence innovation differently.

1.7.6 RESEARCH DESIGN

A survey method was used in this study. This study consisted of a cross-sectional design. A sample of 192 respondents was used. The sample consisted of start-up businesses, primarily

from the formal manufacturing, services, construction and retail sectors in the Western Cape. These businesses were selected from membership of the Western Cape Business Opportunity Forum (WECBOF) and the beneficiaries of RED DOOR. The reason for choosing these sectors was that these sectors represent the most common types of businesses that were registered as members of WECBOF or RED DOOR. The research was carried out in Cape Town and the surrounding business districts. Research participants were informed that the information would be treated as confidential and used for research purposes only.

1.7.7 SAMPLE

The following criteria were applied to obtain the sample for this study:

- Start-up entrepreneurs that were operating for at least one year;
- Only formal registered businesses were included;
- The number of employees employed by these entrepreneurs ranged from at least one employee to not more than 50 employees.

1.7.8 INTERVIEW PROCEDURE

Both structured interviews and questionnaires were used². The interviews were structured so that all subjects were asked the same initial questions and a numerical coding scheme was used to rate the responses (additional prepared prompts that varied from person to person were used if additional information was needed). The interviewer wrote down the answers as verbatim as possible in detailed notes. Immediately following the interview, the interviewer completed an interviewer evaluation questionnaire, which assessed the interviewer's impressions on success factors.

² It has been found that structured interviews often have very good validity, as meta-analyses show (Wiesner and Cronshaw, 1988). Strategy process characteristics and some of the success measures were better ascertained in an interview than in a questionnaire because the techniques used in the interviews allowed for deeper probing into the responses. Moreover, action strategies are better described via stories told by the participants than via questionnaire items (Frese, 2000).

1.7.9 KEY RESEARCH QUESTIONS

The central research question guiding this study is:

How do action strategies influence the relationship between financial management practices and entrepreneurial success?

In examining the role of action strategies in the above-mentioned relationship, the following specific research questions guided the study:

1. What is the impact of Human Capital on Entrepreneurial Success?
2. What is the impact of Financial Management Practices on Entrepreneurial Success?
3. What is the impact of Complete Planning Strategy on Entrepreneurial Success?
4. What is the impact of Critical Point Planning Strategy on Entrepreneurial Success?
5. What is the impact of Opportunistic Planning Strategy on Entrepreneurial Success?
6. What is the impact of Reactive Planning Strategy on Entrepreneurial Success?
7. What is the impact of Entrepreneurial Orientation on Entrepreneurial Success?
8. What is the moderating and mediating impact of Human Capital on the relationship between Financial Management Practices and Entrepreneurial Success?
 - 8a. What is the moderating and mediating impact of Human Capital on the relationship between Basic Financial Management Practices and Entrepreneurial Success?
 - 8b. What is the moderating and mediating impact of Human Capital on the relationship between Advanced Financial Management Practices and Entrepreneurial Success?
9. What is the moderating and mediating impact of Complete Planning Strategy on the relationship of Financial Management Practices and Entrepreneurial Success?

10. What is the moderating and mediating impact of Critical Point Planning Strategy on the relationship of Financial Management Practices and Entrepreneurial Success?
11. What is the moderating and mediating impact of Opportunistic Planning Strategy on the relationship of Financial Management Practices and Entrepreneurial Success?
12. What is the moderating and mediating impact of Reactive Planning Strategy on the relationship of Financial Management Practices and Entrepreneurial Success?
13. What is the mediating and moderating impact of Entrepreneurial Orientation on the relationship between Financial Management Practices and Entrepreneurial Success?

1.8 CHAPTER INTEGRATION AND STRUCTURE OF THE DISSERTATION

This dissertation has been arranged into six chapters.

Chapter 1 focuses on a broad overview of multi-disciplinary perspectives on entrepreneurship. The chapter describes the research problem and presents an overview of the research methodology and the key statistical techniques used in the study. Several shortcomings within the extant literature were noted which emphasized the need to focus more research attention on the role of a psychological approach in order to obtain a better understanding of the entrepreneur and entrepreneurial actions and strategies in relation to entrepreneurial success.

Chapter 2 presents a review of relevant and contemporary research on entrepreneurial actions and strategies of the entrepreneur in relation to entrepreneurial success. Since this research is grounded in three theoretical perspectives, namely, action strategy theory, financial management practices and human capital theory, the review is arranged with regard to the appropriate theoretical perspective being examined, and both conceptual and empirical research are discussed and limitations within the extant literature are highlighted. A conceptual framework and a set of hypotheses are developed in this chapter in order to examine the research questions.

Chapter 3 presents the methodology for the empirical study, which examines the framework and the relationships proposed in the previous chapter. The reliability and validity of the

empirical study are discussed. Correlation and regression statistical techniques are also discussed.

Chapter 4 describes the results and relates to descriptive, correlation and regression statistics.

Chapter 5 describes the analysis and interpretation of the relationships between entrepreneurial actions and strategies and financial management practices, human capital and entrepreneurial success.

Chapter 6 The study concludes by discussing the contributions to research made by this dissertation study and the implications for entrepreneurship practice of its findings, particularly with respect to entrepreneurship training and education. The limitations of this study and possible directions for future research are also outlined in this chapter.

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CHAPTER 2: LITERATURE REVIEW

Understanding the contributing factors of entrepreneurial success, such as entrepreneurial actions and strategies, is important in order to facilitate and create sustainable businesses within opportunity- and necessity-based entrepreneurship, particularly as societies and governments rely greatly on successful entrepreneurship to facilitate job creation and economic development. This chapter presents a literature review of the development of entrepreneurship theory as a growing science in relation to understanding the dynamics underpinning the entrepreneurial process as a fundamental determinant of success.

2.1 INTRODUCTION

Scholars and academics have espoused a broad range of perspectives on entrepreneurship. Most scholars agree that entrepreneurship is very important to micro and small business development and the creation of personal wealth. In Africa, it is pointed out that approximately 25% of people employed outside agriculture depend on entrepreneurship for their livelihood (Unger *et al.*, 2009). Governments around the world, including the South African government, have acknowledged the contribution of entrepreneurship to jobs and economic development.

Entrepreneurship has been viewed as a driver of motivation in individuals, businesses and related stakeholders to develop new opportunities that can promote positive change and create economic growth in their societies (Blenker, Dreisler and Kjeldsen, 2008). The entrepreneurial spirit is perceived to be critical in driving innovation in industries that could channel the development of new enterprises and growth of existing organisations (GEM, 2009).

Organisational researchers have traditionally focused on large organisations and the firm as the unit of analysis to investigate how new knowledge is acquired and disseminated throughout the organisation (e.g. Brown and Harvey, 2006). Such studies have a strong focus on the ‘learning

organisation' and how organisations develop strategies to obtain competitive advantages and a sustainable edge.

In this study the focus will revolve around start-up SMEs with the emphasis placed on the entrepreneur. Significant interest exists in the entrepreneur as the unit of analysis and this is reflected in a number of studies in entrepreneurship (Krauss *et al.*, 2005; Frese and Rauch, 2007; Baron and Katz, 2007).

In developing economies, entrepreneurship has been the primary source of income for millions of people and enterprising entrepreneurs have found distinct market niches and realised prosperity and wealth. While there are numerous entrepreneurial opportunities available as a result of the downscaling of large-scale enterprises, the failure rate of start-up businesses is high and this is exacerbated by very low growth rates in South Africa (Krauss *et al.*, 2005).

The purpose of this chapter is to conduct a review of various contributions to entrepreneurship theory and include diverse perspectives. The literature review will focus on the development of entrepreneurship and contributions made by various schools of thought to obtain a better understanding of entrepreneurship. These views include contributions made by economic theory, the psychological trait theories, human capital theory, financial management practices and action strategy theory.

2.2 DEVELOPMENT OF ENTREPRENEURSHIP THEORY - ECONOMISTS' INTERPRETATION OF ENTREPRENEURSHIP (EARLIER THEORIES)

The popular view among economists is that entrepreneurship theory originated purely out of the science of economics. The pioneers in the field were Say (1791) and Cantillon (1755), who studied the role of entrepreneurship and focused on managerial aspects, business development and business management within the firm. They emphasised economic management by entrepreneurs seeking business opportunities through optimal yields on invested capital.

Cantillon described entrepreneurs as a vital part of the economy, accounting for exchange and circulation, and earning an uncertain profit, as opposed to wage earners or land owners that

derived a fixed income. Cantillon defined the entrepreneur as an “arbitrageur”, an individual that equilibrates supply and demand in the economy.

Say viewed entrepreneurs as the main agent of production in the economy and argued that the entrepreneur was an input in the production process. Say also pointed out that an entrepreneur should have good judgement qualities. Say did not see the entrepreneur as someone deriving profits from a business venture as a result of risk, but rather the beneficiary of a wage accruing to scarce labour.

Marshall’s (1891) perspective on entrepreneurship emphasised risk and managerial aspects, but introduced an innovation function and suggested that entrepreneurs constantly seek new opportunities.

Knight (1921) suggested that entrepreneurs are owners of companies and derive direct profits as a result. His perspective is significantly different from Schumpeter’s in that Knight emphasises the creation of uncertainty by the entrepreneur. Knight’s perspective on entrepreneurship is closely associated with neo-classical theories emphasising that the entrepreneur is more than just a passive agent, while the Schumpeterian theory is more difficult to align to neo-classical perspectives.

These early theories of entrepreneurship focused on the distribution of income, the role of the entrepreneur as an input factor and the innovation function. Although these initial theories distinguished entrepreneurship from mainstream management theories, they did not offer a significant explanation of success, nor did they establish a comprehensive theory of entrepreneurship.

Schumpeter’s (1935) perspective opposed the view that entrepreneurship is associated with risk-taking and management. He described entrepreneurship in relation to ‘creative destruction’ and innovation. Schumpeter argued that the entrepreneurial task is to identify new combinations and champion these combinations in production. In Schumpeter’s view, an individual can be considered an entrepreneur if these new combinations are implemented. The Schumpeterian view of entrepreneurship differs significantly from earlier theories in that, while the previous theories emphasise how the manager combines inputs in the production function

in order to attain technical efficiency, Schumpeter's theory emphasises the central importance of innovation to entrepreneurship.

Post-World War Two scholars in mainstream economics continued to view entrepreneurship from a neo-classical equilibrium analytical perspective, often suggesting that large-scale enterprises are the key drivers of prosperity in the modern-day economy. This perspective saw little value that could be added from the Schumpeterian theory.

Prominent theoretical contributions arose outside the neo-classical framework. Kirzner (1973) and Schultz (1971) criticized the neo-classical theories and argued that economies are characterised by constant disequilibria and that entrepreneurship presents a means of dealing with it. The theories of Kirzner, Schumpeter and Schultz are similar in that they all converge on the idea that the entrepreneur seeks business opportunities. The theories of Schultz and Kirzner are based on the assumption that business opportunities are revealed when information becomes accessible.

More recent theories have drawn on the works described above. Shane and Venkataraman (2000) argue that entrepreneurship involves the presence of lucrative opportunities and the presence of enterprising individuals. Their theory draws on the work of Kirzner and they emphasise that prior information is needed to complement the new information in the discovery of new business opportunities. A number of other studies focus on human capital and how it influences the recognition of opportunities which ultimately determine radical innovation (Corbett, 2007; Dimov and Shephard, 2005).

Casson (2003) attempts to combine both Knight's and Schumpeter's theories by emphasising entrepreneurs as specialist decision makers. Casson also made an attempt to link entrepreneurship to economic development and emphasises resource coordination and decision making. Other perspectives support the view that entrepreneurs are specialist decision makers and contribute to radical innovation in an economy (Baumol, 2002, 2006). Some scholars have drawn on Casson's work and postulate a relationship between the emergence of new small businesses and local economic development (LED). Furthermore, they argue that entrepreneurial ventures contribute two and a half times more toward innovation than large organisations (Marvel and Lumpkin, 2007).

Recently, economic development policies for rural districts have changed significantly and positioned entrepreneurship in small towns as a necessary and important link to economic development, and promoted the role of small towns as service centres facilitating opportunities for SMEs and job creation (Atkinson, 2008).

Audretsch (2001) indicated that major job losses were experienced in large-scale enterprises across the world during the 1990s and governments then looked toward small businesses as a means of economic turnaround in order to facilitate economic development and job creation. This phenomenon raised the importance of entrepreneurship in promoting and fostering economic growth, particularly in developing economies. Policy formulation and economic development strategies therefore needed to support an entrepreneurship culture as an antidote to the phenomenon of job destruction and the inability of large-scale enterprises to create employment, particularly in the rural areas, where unemployment has proven to be substantially higher than in the urban areas (Atkinson, 2008).

Recent studies (see Acs and Armington, 2006) have built on Audretsch's work and focused on the relationship between competitiveness and productivity, as increasing pressures of globalization impact on policies to improve economic growth and reduce poverty. A significant component of a country's competitiveness is having a good investment climate or business environment underpinned by a vibrant entrepreneurial environment.

Evidence of revised economic development policies has resulted in the transition of economic models from managed economies to entrepreneurial economies (Acs and Armington, 2002, 2004, 2006). The emergence of entrepreneurial economies (such as Trinidad and Tobago, Mexico, Tunisia and Malaysia) was driven by successful entrepreneurship development strategies based on entrepreneurship, human capital, and regional economic growth (Acs and Armington, 2002, 2004, 2006; Audretsch and Keilbach, 2004).

2.3 ENTREPRENEURSHIP CAPITAL – A DERIVATIVE OF HUMAN CAPITAL

While the economic perspective (neoclassical theory) has placed much emphasis on investment in physical capital to drive economic growth, some scholars have argued the accumulation of

knowledge and human capital to be more important (Romer, 1990). Other contributions in this area have resulted in the identification of social capital³ which drives the shaping of economic growth and prosperity (Putnam, 1993; Coleman, 1988). While physical capital refers to physical objects, human capital refers to the intangibles, namely, experience, knowledge, expertise and education.

More recent research in ethnic entrepreneurship indicates higher levels of self-employment including human, financial and social capital contributing to higher success levels (Robb and Fairlie, 2009). Other studies emphasise the importance of networks of co-ethnics and how they can provide valuable resources, such as access to finance, customers, labour and technical support, particularly for start-up businesses (Light, 1972; Waldinger, Aldrich and Ward, 1990; Saxenian, 2000; Zhou, 2004; Kalnins and Chung, 2006; Gil and Hartmann, 2007).

Putnam challenged the neoclassical theorists and argued that social capital should be taken into account, particularly since compelling studies have emerged suggesting that entrepreneurial activity will be enhanced where investments are made in social capital, (Aldrich and Martinez, 2003; Thornton and Flynn, 2003).

Further contributions in entrepreneurship research point to the fact that social capital does not always result in entrepreneurial activity and therefore a sub-component of social capital emerged, namely, entrepreneurship capital. Audretsch and Keilbach (2004) distinguished between social capital and entrepreneurship capital and postulated that, while social capital may not be conducive to economic performance, entrepreneurship capital is a specific orientation and has a positive impact on entrepreneurial activity that in turn impacts on economic activity.

Two views have emerged within the contributions to entrepreneurship capital theory. It has been argued that entrepreneurship could have adverse effects on performance in technologically-driven industries (Ferguson, 1988). Ferguson argues that in the case of Silicon Valley, entrepreneurship had a drag on economic performance and was indicated in larger structural problems such as personnel mobility, ineffective intellectual property protection, risk

³ Social capital is widely used in the social sciences and is broadly defined as the maintenance of networks and norms of behaviour that underpin them.

aversion in large companies and tax subsidies for new company formation which are unable to sustain long-term competitiveness. It is suggested that for SMEs to become competitive, particularly in high technology-driven industries it is essential for them to have access to technology as well as the appropriate capacity to use it effectively (GEM, 2009).

The opposing perspective suggests that entrepreneurship capital has a positive impact on economic performance (Saxenian, 1994). Saxenian argues that it is not exclusively a matter of skilled labour, suppliers and other structural factors that impacted on the economic performance, but a myriad of other factors such as tertiary institutions, trade associations, local business organisations, specialist consulting firms and venture capital firms that provide technical, financial and networking services which ultimately impacts on economic performance. In efficiency-driven economies such as South Africa, the development of entrepreneurship is paralleled by the development of emerging financial capital that could benefit SMEs (GEM, 2009).

In essence, these perspectives suggest that entrepreneurship capital can be seen as a mechanism for knowledge spill over as it facilitates the flow of ideas. Audretsch (2004) suggests that in industries where a high degree of entrepreneurship capital exists, entrepreneurship could act as a conduit of economic performance. It cannot however be assumed that the spill over of specialised knowledge will automatically result in a new start-up business. Other factors may drive the employee whose new idea is not highly valued to start a new business from the incumbent enterprise. In addition, the prevailing unemployment conditions and the entrepreneurial climate should also influence an individual's mindset and consequently the number of start-up enterprises (GEM, 2006). In addition, motivation is a vital factor in successful start-up ventures and this could also impact on the degree of entrepreneurship capital (Le Grange, 2008).

2.3.1 HUMAN CAPITAL AND INNOVATION

The link between human capital and innovation is important and has attracted much attention in the entrepreneurship literature. Innovation has become the cornerstone of competitiveness and of central importance to entrepreneurship (Covin and Miles, 1999; Schumpeter, 1934).

Pavitt (1991) has distinguished between radical innovation and incremental innovation. Entrepreneurial firms contribute about two and a half times more innovations per employee than large enterprises (Audretsch and Acs, 2003) and account for the bulk of innovations in the economy (Baumol, 2002, 2006). Although large enterprises account for approximately three quarters of US expenditure on research and development, entrepreneurs have been found to be more likely to account for radical or revolutionary innovation (Baumol, 2006).

Although Leifer, McDermott, O'Connor, Peters, Rice and Veryzer (2000) point out that the economic impact of radical or revolutionary innovation is more direct and significant and can transform markets and generate opportunities, other scholars suggest that while theories exist that link entrepreneurship to revolutionary innovation at a macro level, a lack of empirical evidence exists at the micro level (Baumol, 2006).

Some studies, which have rich theoretical and practical implications for entrepreneurship, have focused on understanding how individuals create breakthrough innovations (Shane and Venkataraman, 2000). A number of empirical studies have produced evidence suggesting that a clear link exists between human capital and the recognition of an opportunity (Davidsson and Honig, 2003; Shane, 2000; Shepherd and De Tienne, 2005). Human capital theory suggests that individuals with higher human capital will achieve more desirable outcomes (Becker, 1964). The eluding question regarding human capital theory relates to how human capital contributes to the process of radical innovation. Marvel and Lumpkin (2007) attempted to address this question and drew on the work of Corbett (2007) and Dimov and Shepherd (2005).

What gives the individual entrepreneur a radical innovation advantage compared to a large enterprise? Baumol (2006) suggests that this depends more on the extent of individual knowledge and the initiative of the individual than organisational processes. Regarding technology industries, the literature suggests that technology entrepreneurs are individuals who recognise and exploit opportunities by leveraging technology knowledge and experience to create new value. Research has examined how human factors such as behavioural propensities and personality traits (Zhao and Seibert, 2006) of entrepreneurs impact on entrepreneurial outcomes, but little is known about the role of human capital in entrepreneurship.

Many scholars concur that the recognition of opportunities is a vital aspect in entrepreneurship and this is strongly linked to the individual's characteristics (Bygrave and Hofer, 1991). Much attention has been given to human capital and its relationship to opportunity recognition (Shane, 2000; Shepherd and De Tienne, 2005, Thorpe, Holt, Macpherson and Pittaway, 2005). Scholars (Zhao and Zeibert, 2006) argue that entrepreneurs will recognise or discover opportunities that are directly related to their knowledge.

Marvel and Lumpkin (2007) distinguished between general and specific human capital. General human capital relates to work experience and practical experience that is obtained on the job and includes education (Becker, 1964). Research indicates that market experience, management experience and previous entrepreneurial experiences are significantly related to start-up activities and positive outcomes (Bates, 1990; Gimeno, Folta, Cooper and Woo, 1997; Robinson and Sexton, 1994). This line of thinking resonates with similar perspectives suggesting that work experiences set the context within which an entrepreneur decides to invest in a particular venture (Fiet, 2002). Other scholars indicate that the majority of start-up businesses are driven by ideas from previous employment (Vesper, 1980; Case, 1989; Bhide, 2000).

Specific human capital has been associated with specific types of knowledge within technology-driven industries. Scholars are particularly interested in the relationship between specific human capital and opportunity recognition. One of the earlier findings that suggest a clear link between human capital and opportunity recognition was by Christensen and Peterson (1990). Their research emphasised the importance of technology and market knowledge in order to identify problems and potential opportunities to advance technology. Other studies have emphasised the role of specific knowledge in recognising opportunities regarding new product development (Iansiti, 1993; Leonard and Sensiper, 1998; O'Conner and Veryzer, 2001).

While the literature suggests that human capital is a vital factor in relation to opportunity recognition and radical innovation, the research provides an imprecise understanding of what types of learning experiences will be helpful at what stages of entrepreneurial processes. Frese and Rauch (2004) suggest that studies very seldom address the mechanisms through which human capital of entrepreneurs lead to success. They posit that knowledge about these

mechanisms is important for theoretical and practical reasons. Theoretically, scholars need to demonstrate the mechanisms by which human capital impacts positively on success, and practically, intervention points need to be known in training. They suggest that mediation can be a useful intervention point for future studies.

Scholars have shown that a small positive relationship exists between human capital of entrepreneurs and success. Rauch and Frese's analysis of seven quantitative studies shows an average correlation of .09 between human capital and success (Chandler and Hanks, 1994; Chandler and Jansen, 1992; Goebel and Frese, 1999). One of the reasons posited for the small size of this relationship is the fact that measures of human capital are often proxy measures such as years of schooling, managerial experience and industry experience (Rauch and Frese, 2007). Marvel and Lumpkin (2007) also point out that knowledge is generated through an individual's unique life experiences and each person's accumulation of human capital will be different.

Therefore, the following is hypothesised:

H₁: Human capital is positively related to Entrepreneurial success.

2.4 DEVELOPMENT OF ENTREPRENEURSHIP THEORY – BEHAVIOURISTS' PERSPECTIVES

While previous views distinguished entrepreneurial activities from managerial activities and argued that identifying opportunistic ideas for growth was a vital component in entrepreneurship, McClelland (1961) was less restrictive in his view and suggested that an innovative manager who has decision-making power in a firm was as much an entrepreneur as the owner of a business. McClelland's (1971) work focused on managers working in large firms. Brockhaus and Horwitz (1986) point out that although his work is strongly associated with entrepreneurship, he did not establish a clear link between the need for achievement and the decision to start a new business. Although a number of scholars studied the need for achievement and success in entrepreneurship, none established conclusive results (Durand and Shea, 1974; Hundall, 1971; Singh and Singh, 1972).

The field of entrepreneurship was dominated by the emerging school of thought of behaviourism between 1960 and 1980. Most of the research in entrepreneurship focused on defining entrepreneurs and their characteristics (Hornaday, 1995; Blawatt, 1995; Timmons, 1978).

Researchers have also been concerned with whether successful entrepreneurs display psychological traits that distinguish them from less successful entrepreneurs. A major limitation with the trait approach and similar approaches is that there is a lack of empirical evidence to support the view that a single trait can explain success in entrepreneurship. Nieman *et al.*, (2003) support the view that the behavioural approach was unsuccessful in establishing a general profile that would identify potential successful entrepreneurs with accuracy. As a result of these shortcomings, scholars and researchers have moved to explore skills and competencies as better indicators of entrepreneurial success. Toward the end of the 20th century, theorisation on personality research in entrepreneurship reached a dead end (Aldrich, 1999)⁴.

Previous findings suggest that, on the one hand, a positive relationship does exist between personality and business creation/business success (Chell, Haworth and Brearley, 1991; Cooper and Gimeno-Gascon, 1992; Rauch and Frese, 2000); while on the other hand, some scholars do not support such findings (Brockhaus and Horwitz, 1986; Gartner, 1989; Low and MacMillan, 1988). Based on the meta-analysis of Frese and Rauch (2007), evidence has been provided to support the relationship between personality traits in entrepreneurship research (Collins, Hanges and Locke, 2004; Zhao and Seibert, 2006).

Research conducted by Frese and Rauch (2007) focused on specific personality traits rather than previous research that studied a broad range of personality traits in order to predict entrepreneurial behaviour. Personality traits were studied in a business creation and business success context. Other studies involving self-determination theory suggest that motivation can be initiated internally or externally. Internally regulated motivation, however, could lead to

⁴ Interestingly, although such perspectives have been seen to have reached a dead end, major development in MBA programmes at business schools have been experienced during the past five years, particularly relating to entrepreneurship education and future pedagogical development. MBA schools have recently accepted that far too much emphasis have been placed on basic management skills such as wisdom, leadership and interpersonal skills at the expense of entrepreneurial skills and competencies (Binks *et al.*, 2006).

deeper motivation and raise the ability of the individual to go beyond the specified goal (Le Grange, 2008).

The definition of personality traits in the literature appears to be varied. Some scholars define personality traits as dispositions that can vary over a number of different and unique situations (Caprana and Cervone, 2000), while others suggest that they remains stable over time (Roccas, Sagiv, Schwartz and Knafo, 2002). Rauch and Frese (2007) define personality traits as propensities to act and therefore suggest that traits are predictors of entrepreneurial behaviour. While previous research has indicated that personality traits are not related to business creation/ business success (Brockhaus and Horwitz, 1986; Gartner, 1989; Low and MacMillan, 1988), it is pointed out that small business owners' personalities were not theoretically driven, but were descriptive in nature, mixing task-related and non-task related personality variables resulting in an overall weak relationship (Frese and Rauch, 2007).

Trait theory continues to emphasize personality traits as a vital determinant of entrepreneurial success, primarily due to the fact that it is so appealing. However, recent times have seen major critiques being levelled at whether traits are indeed needed for the development of entrepreneurship. However, it has been shown that in some cases, successful entrepreneurs become less entrepreneurial with time (Wickham, 2004). In other cases, where entrepreneurs have to realise and to exploit business opportunities as well as make important decisions in dynamic business environments, they require a wide range of skills, knowledge and abilities in innovation, marketing, finance and management (Shane, 2003). Examples of traits matched to such tasks are the need for achievement, innovativeness, proactive behaviour, need for autonomy, risk-taking and an internal locus of control (Rauch and Frese, 2007).

Rauch and Frese (2007) point out that although the relationship between personality traits and business creation/ business performance is moderate, the size of the relationship equates to that of personality traits and leadership emergence/ leadership effectiveness (Judge, Bono, Ilies and Gerhardt, 2002). Similar findings are supported by Johnson (2003) and Tett, Steele and Beauregard (2003) that suggest that personality trait theory should be taken into account in entrepreneurship research.

Recent developments regarding trait theory have produced negative and positive reviews. Shaver (2003) posed two questions, namely: why do some people but not others become entrepreneurs; and, why are some entrepreneurs successful and others not?

Research in the area of personality traits and entrepreneurship has been linked to the motivation of an entrepreneur in the start-up phase. This marks a departure from explaining and understanding entrepreneurship from the economic perspective, where entrepreneurship was mainly linked to economic growth models and tended to focus on firm growth. The main purpose of the new approach was to understand start-up intentions, facilitate an increase in the number of start-up businesses and to understand and to ensure business success (Frank, 2007).

Generally, psychological explanatory models attempt to explain which personality traits can be associated with new business founders and secondly, whether these characteristics can be causally linked to success (Rauch and Frese, 2000). One of the few psychological theories that attempts to explain why some people start businesses and others do not is attribution theory, which focuses on three aspects: intention to perform the task, effort to accomplish the task and ability that exceeds the difficulty of the task (Heider, 1958). Attribution theory marks an important development in entrepreneurship theory, considering that most previous research had been applied in organisational behaviour and social psychology research (Martinko, Harvey and Dasborough, 2011).

In attempting to explain the success and failure of the entrepreneurial venture through attribution theory, Shaver (2004) postulated that if, an entrepreneur failed due to external factors, then there was no reason why the entrepreneur should not try again. Conversely, Shaver pointed out that if an entrepreneur failed due to internal factors, the entrepreneur would not consider a second attempt if the failure was due to ability. However, if the reason was poor strategy or poor effort, the entrepreneur would consider a second attempt. The limitation with this approach was that the empirical evidence was not sufficient to explain success.

In addition, the attribution styles of entrepreneurs were complicated through societal culture. High success was associated with internal and external factors and similar patterns were found for low success. These findings were inconclusive, although entrepreneurship literature has found positive correlations between success and an internal locus of control (Brokhaus, 1980).

More recently, limitations have been found relating to the dynamism of entrepreneurial behaviour, as well as the fact that sample sizes were too small and the lack of statistical power muted the effects in observed sizes (Martinko, Harvey and Dasborough, 2011).

Positive reviews relate to entrepreneurship education which has been recognised as a vital factor in developing entrepreneurial attitudes of young individuals at tertiary institutions (Gorman, Hanlon and King, 1997; Kourilsky and Walstad, 1998). Similar perspectives suggest that the development of entrepreneurial attitudes of students is becoming increasingly popular and therefore it is important to understand how to develop potential entrepreneurs (Wang and Wong, 2004).

In Chen and Lai's (2010) study the aim was to measure entrepreneurial attitude through the environment and personality traits. It was found that the environmental cognition could affect the entrepreneurial attitude and personality traits could in turn affect the attitude through the environmental cognition. In their study they found that the need for achievement, a locus of control and creative thinking were mediated through the environment and were important factors for influencing attitude in entrepreneurship, offering a renewed interest in psychology in entrepreneurship research.

2.5 ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT IN SOUTH AFRICA

Statistics relating to the level of entrepreneurial activity in this study are based on The Global Entrepreneurship Monitor (GEM) since there are no other reliable sources of data. (GEM) is a not-for-profit academic research consortium that has as its goal-making high quality information on global entrepreneurial activity readily available to as wide an audience as possible. (GEM) is the largest single study of entrepreneurial activity in the world. (GEM) research programme is an annual assessment of the national level of entrepreneurial activity.

It is widely acknowledged in all Global Entrepreneurship Monitor reports that the formal and the public sector in South Africa have failed to generate sufficient employment opportunities to absorb the growing number of job seekers. As a result, governments have focused increasing

attention on entrepreneurship to facilitate employment creation and economic development (GEM, 2008).

Despite research focused on the impact of a major event such as the FIFA Soccer World Cup in June/July 2010, that showed a significant increase in entrepreneurial activity in South Africa compared to the 2008/2009 periods, the prevailing enabling environment in South Africa remains challenging, where individuals cannot see entrepreneurship as a viable career alternative (GEM, 2010).

Since South Africa's inclusion in the GEM project in 2001, the entrepreneurship activity indicators have consistently shown below median performance and the trend is likely to continue into the future. This is somewhat surprising considering that South Africa has an acceptable standard in terms of its per capita income. The Total Entrepreneurial Activity Index (TEA) is an indicator that measures the overall entrepreneurial activity in the country (GEM, 2008). It is pointed out that South Africa should have a TEA of approximately 13%, which is almost double the current rate.

South Africa's low performance rate has been attributed to a high failure rate for start-up businesses and the fact that not many progress beyond the nascent phase. GEM (2008) indicates that there is an expectation that high levels of under-employment and unemployment in South Africa would be an impetus to stimulate higher levels of necessity entrepreneurship. In addition, the lack of an enabling environment, especially in rural areas, presents a major challenge to developing entrepreneurial activity in such areas.

Regionally, Gauteng, Kwazulu-Natal and the Western Cape are the most entrepreneurial in comparison to the other provinces (GEM, 2008). Cape Town has TEA rates that are 65% higher than the national average. Although this is encouraging, concerns (see Special GEM Report, 2010) have been raised about the quality of entrepreneurship education at schools and at a post-school level, which impact directly on the preparation of future entrepreneurs in South Africa.

Other GEM reports (2004) also indicate that South Africa, like other countries with low GDP per capita and low TEA rates, has a significantly lower proportion of people who have confidence in their ability to start a business. This could be largely attributed to the apartheid

policies that prevented equitable access to education and business opportunities for previously disadvantaged communities. Prior industrial policies in South Africa also favoured the promotion of large-scale enterprises for employment creation and economic development.

According to GEM 2004, an improvement in South Africa's rate of entrepreneurial activity will take time and must involve long-term policy actions in order to increase confidence levels, skill, knowledge and experience. It is suggested that larger proportions of start-up or emerging entrepreneurs from historically disadvantaged backgrounds in South Africa should complete secondary school and continue with higher education, complemented by the appropriate skills, knowledge and experience, before starting a business. GEM 2004 suggests that higher levels of education are associated with entrepreneurial self-confidence. The biggest priority is to improve the education and training system, followed by government policies/ programmes and financial support (GEM, 2004).

All the GEM reports have highlighted a deteriorating situation, reflecting consistently low entrepreneurial activity rates of development. GEM 2006 focused on identifying the factors that contribute to this deterioration. Among the most important findings were the lack of an entrepreneurial mindset and the skills to become true entrepreneurs. Some positive signs are evident where a positive entrepreneurial culture is starting to form at the macro level. The micro level is not developing with international markets not being penetrated, insufficient employment creation and a lack of innovation. Other studies have confirmed a lack of innovation as one of the major contributors to entrepreneurial failure (Krauss, 2005 and Friedrich, 2000).

The GEM reports contribute significantly toward entrepreneurship research. One of the main strengths of the GEM resides in its longitudinal measures of various aspects of entrepreneurship. This allows for international comparative analysis and importantly, regional comparison of entrepreneurial activity rates between various provinces. GEM studies explain entrepreneurship in relation to economic development and job creation. In addition, the focus tends to be on factors contributing to firm success.

The limitations of the GEM studies are that they are primarily levelled at the firm. While the contribution of GEM research presents remarkable information on growth and the prevailing

state of entrepreneurship in South Africa, the value of psychological frameworks (see Giessen-Amsterdam Model of Entrepreneurial Success) could provide more insight into success factors, particularly with regard to start-up entrepreneurs.

2.6 FINANCIAL MANAGEMENT PRACTICES OF START-UP ENTREPRENEURS

It has frequently been argued that SMEs are vital to developing the economy in South Africa. However, the failure rate remains high for start-up businesses. Lack of finance has been cited to be the single most important factor contributing to the current business failure rate of 75% (Fatoki and Odeyemi, 2010).

GEM (2003) explored four themes: why rates of entrepreneurial activity are lower in South Africa than other developing economies; how entrepreneurial activity varies by region; how sources of finance vary internationally; and how financial management practices of “black-owned”, formal businesses in South Africa impact on their financial health and ability to raise finance. GEM (2003) highlighted severe challenges in “formal black-owned” businesses regarding cash flow management (cash constraints and cash flow difficulties) and access to finance.

One underlying reason for the lack of finance of “black entrepreneurs” in South Africa is as result of apartheid policies, which created an environment that favoured “white South Africans” who were consequently in a more favourable position to accumulate assets through investment opportunities and to acquire wealth. Today, the accumulation of this wealth (that is, investment capital and collateral) has resulted in “white South African entrepreneurs” being in a stronger position to access finance from the banks than “black South African entrepreneurs”, who often lack collateral to support loan applications. In addition, “white South African bankers” may be more sympathetic to “white entrepreneurs” than “black entrepreneurs”.

Further limitations and challenges facing “black entrepreneurs” stem from the education system at the time of apartheid, which resulted in significant disparities in the quality of education. In short, the system was by design intended to equip potential “black entrepreneurs”

for working for others rather than working for themselves. This resulted in a low confidence to start new enterprises and a poorly developed entrepreneurial climate within the “black” communities, where, in the absence of many successful role models, entrepreneurship was perceived as a high-risk venture.

As a result, when people were forced into entrepreneurship by necessity and started their own businesses, the lack of entrepreneurship education, from theoretical as well as practical dimensions, became apparent, often resulting in poorly educated entrepreneurs (Nieman *et al.*, 2003).

The effective management of financial resources has become crucial to the success of start-up enterprises, particularly since access to finance from banks is challenging (Fatoki and Garwe, 2010). Finmark Trust (2006) pointed out that less than 2% of new SMEs in South Africa were able to access bank loans. This is also confirmed by Foxcroft, Wood, Kew, Herrington and Segal (2002) who reported that more than 75% of bank loan applications by new SMEs are rejected.

The fact that start-up entrepreneurs struggle to access finance has raised the increasing importance of financial management practices. Martin and Staines (2008) suggest that the lack of managerial experience and skills are primary reasons for business failure of start-up entrepreneurs. Firms that implement basic financial management practices will have a better chance of accessing finance.

GEM (2003) confirmed that the implementation of simple financial management practices (cash book, accounts receivable and proactive debtor management) will not only have a direct impact on cash flow by reducing cash flow difficulties, but will also improve access to finance. It is widely acknowledged that careful management of cash flows is vital to the survival of a start-up business.

In a review of a number of studies focusing on a predictor model of success, conducted by Lussier and Pfeifer (2001), it is shown that businesses starting with a lack of adequate capital are more likely to fail than businesses with adequate start-up capital. Furthermore, Lussier and Pfeifer (2001) indicated that entrepreneurs that do not implement basic financial management strategies are more likely to fail than entrepreneurs that do. They also point out that

entrepreneurs often lack the appropriate financial management skills that are necessary to apply financial management strategies.

Therefore:

H₂: Financial management practices are positively related to entrepreneurial success.

Some scholars suggest that human capital can be associated with high performance. Research has also shown that specific and general human capital impact not only on opportunity recognition, but also on innovation (Marvel and Lumpkin, 2007), which has been found to relate to business success (Frese, 2000).

Previous research by Frese and Rauch (2004) suggests that studies very seldom address the mechanisms through which the human capital of entrepreneurs leads to success. Differences between average and high performers have been attributed to the level of human capital (Unger *et al.*, 2009). This view is supported by Shepherd and De Tienne (2005), who argue that knowledge and self-regulated learning have a direct impact on the success of small businesses.

Therefore, the following is hypothesised:

H_{2a}: Financial management practices are positively related to entrepreneurial success, but this relation is mediated by human capital.

H_{2b}: Basic financial management practices are positively related to entrepreneurial success, but this relation is mediated by human capital.

H_{2c}: Advanced financial management practices are positively related to entrepreneurial success, but this relation is mediated by human capital.

2.7 ACTION STRATEGIES AS PREDICTORS OF ENTREPRENEURIAL SUCCESS

The psychological approach in entrepreneurship research has two dimensions, namely, personality traits and characteristics. In order to establish entrepreneurship as a coherent discipline it is argued that a paradigm be developed that encompasses all aspects of the

entrepreneur and the entrepreneurial process (Hisrich, 2000). It is pointed out that, although the psychological approach involving traits and personality has limitations, some insightful results have been found (Hisrich and Peters, 1998). Positive relationships between personality traits and business creation/ business success have been found and supported (Chell, Haworth and Brearley, 1991; Cooper and Gimeno-Gascon, 1992; Rauch and Frese, 2000). Entrepreneurship involves behaviour and human actions and is a critical element of social change which has been found to be part evolutionary and also part revolutionary, resulting in it being partly beneficial and partly detrimental to society (Snyder, 2008).

Although there have been many studies by scholars that focused on the relationship between personality variables (Baum and Locke, 2004; Sexton, 2001; Smith and Smith, 2000), particularly external and internal factors of success, the psychological processes of the entrepreneur have been neglected as important variables that could be used as predictors of success. It is pointed out that individual actions and thinking are derived from personality traits (Zhao, 1989). Costa and McCrae's (1992) work suggests that personality traits determine the individual's thought, emotion and action. In another study involving entrepreneurs in Southern Africa, it was found that significant relationships exist between individual entrepreneurial orientation (personal initiative, achievement-, and risk-taking orientation) and business performance (Krauss *et al.*, 2005). Current research involving psychological factors in entrepreneurship research has argued that psychological factors contribute toward a better theoretical understanding of mechanisms underlying successful entrepreneurship (Gielniek, 2010).

Entrepreneurship as a theoretical construct and a practical phenomenon remains poorly defined and the interpretation fragmented, suggesting new lines of enquiry (Kikooma, 2010). Hence, the introduction of enquiries utilising psychological frameworks marks a fresh approach involving a general success model of entrepreneurship that takes into account all psychological variables in order to give coherence to entrepreneurship literature, with the focus on the entrepreneur as the main actor (Van Gelderen *et al.*, 2007). While at the turn of the 20th century there were not many studies involving psychological approaches focusing on the entrepreneurial action-oriented process in relation to success, the few studies that were conducted presented some remarkable contributions. Due to the fact that company size in

entrepreneurship is important (Klein and Sorra, 1996), it is shown that the success model, the Giessen-Amsterdam Model of Entrepreneurial Success, can be applied at different levels of analysis (Frese and Rauch, 2000), depending on the company size.

Entrepreneurship is described by some as a developmental science that is at a formative stage (Cunningham and Lischeron, 1991). The field of entrepreneurship research presents scholars with multiple disciplines (such as psychology, economics, management science and anthropology) and consequently different insights into entrepreneurship. The growing body of knowledge in entrepreneurship is evident as new publications are seen in diverse journals, such as the Journal of Applied Psychology, Academy of Management Review, Journal of Small Business Management, Entrepreneurship Theory and Practice, and Administrative Science Quarterly.

One of the major reasons for such interest in entrepreneurship is due to the fact that, firstly, entrepreneurship is fundamentally personal, and secondly, psychology researchers can make significant contributions to entrepreneurship research (Steinkellner, Zehetner and Czerny, 2010).

The work of Frese (2000) draws on the work of Hacker (1994) and the concept of *action strategy*. Previous approaches (Aldrich and Wiedermayer, 1993; Baron, 1998; Baum, Locke and Smith, 2001; Mitchell, Smith, Seawright and Morse, 2000) focused almost exclusively on personality traits to explain venture growth or start-up business decisions. Personality traits have invited substantial criticism from scholars because traits are regarded as being very stable over time.

However, in today's turbulent economic environments, there is increasing pressure for individuals to invoke change and to bring about innovation within organisations as well as within their own lives (Steinkellner *et al.*, 2010). Against this backdrop, action strategy theory therefore presents fresh interest in understanding the entrepreneurial processes and success of individuals and a large growing body of knowledge focusing on such phenomena in entrepreneurship research is offering new perspectives on successful entrepreneurship (Steinkellner *et al.*, 2010).

While organisations need to keep up with the numerous and intensive changes taking place in their environments and to remain competitive, a renewed interest has been shown in entrepreneurship research. It is argued that the entrepreneurial processes involved in a business start-up and business success should be different and unique in entrepreneurship research (Frese and Rauch, 2000). It is also argued that while entrepreneurship involves the identification, evaluation and exploitation of opportunities, two aspects are critical, namely, cognitions and actions (Frese and Rauch, 2007; McMullen and Shepherd, 2006).

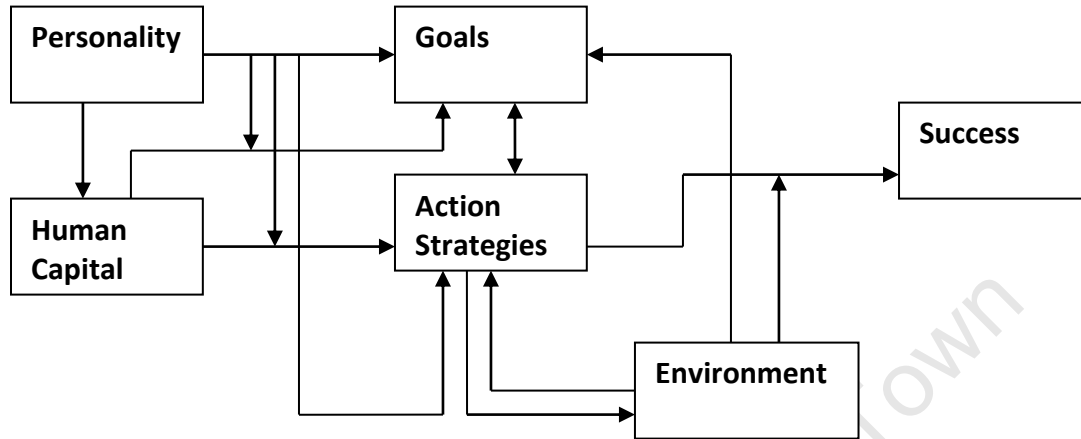
Action strategy explains the behaviour of entrepreneurial actions in relation to success. In terms of action strategy theory, Hacker (1994) postulates three issues, namely, motives, goals and operations. The action strategy theory is firstly based on motives, which are inspirations that are driven by goals. Secondly, goals consist of various operations and actions by the entrepreneur. Frese (2000) postulated that, although it is difficult to record and to measure the operations of entrepreneurs, action strategy theory makes it possible to measure goal setting, entrepreneurial orientation (EO) and strategy process characteristics.

Recently, it has been shown that cognitive factors such as creativity and action planning have explained why some entrepreneurs are more successful than others and this has been a burning topic in entrepreneurship research in recent years (Gielniek, 2010).

Furthermore, action strategy theory is based on various levels of action, namely, skill-based, rule-based and knowledge-based actions. Skill-based actions are based on highly integrated actions and where behaviours are totally automated (for example, the typing process of a secretary). The individual at this level hardly exercises any mental effort in accomplishing the task. Rule-based actions involve a predefined procedure where the individual exercises conscious effort in realising the task. These actions are generally involved in daily tasks that entail detailed procedures. Knowledge-based actions involve mental capacity in order to solve a particular problem and the task is generally not predefined. In order to realise these goals, the individual has to set goals and devise plans. This is followed by the execution of these plans as well as obtaining some feedback on the work done. In this way individuals can realise their mistakes and errors and improve their performance (Hacker, 1994).

The objective of this research is to gain a better understanding of how entrepreneurial strategies are used and how the entrepreneur's strategy-relevant behaviour is related to business success.

Figure 1: Giessen-Amsterdam Model of Entrepreneurial Success



The model is a general framework of success based on the main assumption that actions lead to success and presents the central model in this study. The main focus is on action strategies of the entrepreneur. None of the other variables have a direct relationship to success. Strategies have been emphasized as very important to entrepreneurship research (Chandler, 1962; Anshoff, 1965; Porter, 1980). Entrepreneurial actions and processes have also been studied in pre-launch, launch and post-launch phases of successful and unsuccessful enterprises (Baron, 2007).

Scholars distinguish between strategic content and strategic processes (Olson and Bokor, 1995). Strategic content relates to a type of decision or specific type of strategy (marketing plan, financial strategy, business plan), whereas strategic process focuses on strategy formulation and implementation. The success model distinguishes three dimensions of action strategies, namely, entrepreneurial orientation, strategy process characteristics and content strategy.

2.7.1 ENTREPRENEURIAL ORIENTATION

Two approaches have emerged in the literature. Some scholars study entrepreneurial orientation (EO) in order to distinguish between managers and business owners, while others focus on performance and firm growth. The underlying theoretical basis of EO is that firms with higher levels of EO are more likely to experience higher levels of performance and growth. This has been demonstrated in entrepreneurship as well as strategic management research (Boris, 2008). Research involving EO shows important linkages to technology and firm innovation, not only in order to become more competitive, but also for international expansion (Rwigema and Venter, 2004).

While EO has been studied mostly within an organisational context in relation to technology and firm innovation, much attention has recently been given to SMEs, particularly at different stages of firm development. Against this backdrop, entrepreneurship research involving EO at the individual level of analysis has been examined in order to understand the entrepreneurial process in relation to successful entrepreneurship.

There are five basic dimensions of EO (innovation, proactiveness, risk-taking, autonomy and competitive aggressiveness) that have been used extensively in order to understand the entrepreneurial process in relation to performance (Lumpkin and Dess, 1996). Mediating and moderating effects of EO have been studied in the environmental/organisational-firm performance relationship (Jantunen *et al.*, 2005). These advancements proved to be useful, particularly with regard to firms operating in dynamic and volatile situations. For example, Knight (1997) showed that firms that have higher levels of EO were higher performers than more conservative firms. These findings and development of EO theory are consistent with classical economic theory where the entrepreneur is regarded as the firm (Kreiser, Marino and Weaver, 2002).

Krauss *et al.* (2005) examined the EO-success relationship at the individual level in a South African context. Krauss *et al.* (2005) reported significant relationships between achievement orientation, personal initiative and business performance, making a unique contribution to entrepreneurship research involving psychological perspectives. Recent developments have also found that EO can be influenced by culture and the business environment (Frese, Brantjes

and Hoorn, 2002; Krauss *et al.*, 2005). Similar findings have been made by Thomas and Meuller (2000) suggesting that high levels of EO lead to entrepreneurship.

Frese and Krauss's (2005) conceptualisation of EO relates to the daily tasks of entrepreneurs in relation to the environment. The individual-level EO approach draws on Schumpeterian theory (1934), Lumpkin and Dess (1996) and Covin and Slevin's (1991) work, where EO consists of autonomy, competitive aggressiveness, innovation, risk-taking and proactiveness. They examined personal variables that are more proximal to entrepreneurial behaviour than traits (Kanfer, 1992). McCrae, Costa, Ostendorf *et al.* (2000) points out that while traits are stable and dispositional (i.e. innate) over time, orientations can be conditioned and influenced by the environment.

Current research relating to EO-business success has shown that behaviour proximal to medium domain specificity (for example, learning orientation) is more predictive of entrepreneurial success than low domain specificity (such as conscientiousness) in the entrepreneurial process. These research findings suggest that EO and its components are valuable predictors of business success in a South African context (Krauss *et al.*, 2005).

It is also suggested that these findings should have significant use in an African context. For example, it has been shown that although entrepreneurial activity is high in Uganda, the rate of innovation is low, resulting in a high closure rate of start-up firms (Gielniek, 2010). Using EO as predictors of success could also allow for examining factors enhancing or prohibiting creativity and innovation (Zhou, 2008). This also has significant implications for entrepreneurship theory and practical application.

This thesis therefore draws on the work of Krauss *et al.* (2005) and Frese (2000) and uses the individual-level concept of EO to determine the EO-entrepreneurial success relationship through financial management practices.

Therefore:

**H₃ – Entrepreneurial orientation is positively related to entrepreneurial success.
Entrepreneurial orientation components are positively related to entrepreneurial success.**

While financial management practices can also be regarded as a contributing factor to entrepreneurial success, the following are hypothesised:

H_{3a} – Entrepreneurial orientation and its components – innovation, autonomy, personal initiative, risk-taking, achievement and learning – have additive effects to entrepreneurial success when added to the environment and financial management practices.

Therefore, H_{3b}: Entrepreneurial orientation mediates the relationship between Basic financial management practices and entrepreneurial success.

H_{3c}: Entrepreneurial orientation mediates the relationship between advanced financial management practices and entrepreneurial success.

H_{3d}: Entrepreneurial Orientation mediates the relationship between Financial Management Practices and Entrepreneurial Success.

2.7.2 STRATEGY PROCESS CHARACTERISTICS

An intense debate has emerged in entrepreneurship literature on the value of planning, particularly relating to start-up entrepreneurs. Some scholars argue that formal planning is a vital component in preparing start-up entrepreneurs. A study has shown that in the top 100 business schools in the United States, 78 schools offer courses on business plan writing (Honig, 2004). Scholars have also pointed out that in many countries; business plan competitions play a crucial role in promoting entrepreneurship (Karlsson and Honig, 2007). There is a view, particularly related to nascent entrepreneurs, that new firm creation might be equated with the assumption that greater business planning results in greater success (Brinckmann, Grichnik and Kapsa, 2010). While a number of empirical studies have been conducted to examine planning-performance relationships, results have been inconsistent (Robinson and Pearce, 1984; Sexton and Auken, 1985; Lange, Mollov, Pearlmutter, Singh and Bygrave, 2007; Gartner and Liao, 2005).

During the last decade new developments in entrepreneurship research have seen the emergence of the study of strategy process characteristics of small business owners (Frese, Van

Gelderen and Ombach, 2000). With the psychological process conceptualisation of strategy, it has been pointed out that more can be learned about the rudimentary strategies employed by entrepreneurs (Rajagopalan, 1993).

The emergence of theories studying entrepreneurial processes in relation to success presents important milestones in entrepreneurship research. In contrast to attribution theory commonly used in organisational behaviour and social psychology, where the focus is on understanding the decision to become an entrepreneur (see Steinkellner *et al.*, 2010), strategy process characteristics have provided some useful insights, particularly in Southern Africa (Gielniek, 2010).

Frese's (2000) definition of *action strategy* (an integral part of this study) distinguishes four areas, namely, complete planning, critical point planning, opportunistic planning and reactive planning strategies. Higher level planning strategies such as complete planning and critical point planning strategies represent the top down approach, while lower level planning strategies such as opportunistic planning and reactive planning strategies represent a bottom-up approach.

The thesis draws on the work of Frese *et al.* (2000) and examines the actions of the entrepreneur. Strategy process characteristics and entrepreneurial orientation concepts assist in obtaining a better understanding of the actions of start-up entrepreneurs. If this understanding could be successfully transferred to start-up entrepreneurs, their self-perception of entrepreneurial abilities might be assisted, which in turn could potentially facilitate entrepreneurial success.

Frese and Rauch (2000) point out that psychological variables are consistently related to entrepreneurial entry and success. Although meta-analyses show that personality variables are related to entrepreneurial behaviour and success in entrepreneurship research (Frese and Rauch, 2007; Zhao and Seibert, 2006), entrepreneurship scholars concur that personality variables offer too little theoretical and practical value, particularly relating to entrepreneurial outcomes (Baum *et al.*, 2007).

Current research shows that, by focusing on psychological factors of cognition and action, better attempts can be made at answering the question as to why some entrepreneurs are more

successful than others (Gielniek, 2010). It is further argued that psychological variables (for example, action-related variables) function as mediators in the process leading to success, and that further research is needed where psychological variables such as strategy process characteristics are used as mediators.

Entrepreneurship theory was further developed in a study involving the use of strategy process characteristics relating to street vendors in developing countries such as Vietnam, where reactive strategy was found to be the least successful strategy (Hiemstra, Kooy and Frese, 2006). In another study, strategy process characteristics were used to compare failed business owners to successful business owners. The results indicated that failed business owners used complete planning strategy less than reactive strategy (Van Gelderen, De Vries, Frese and Goutbeek, 2007).

H₄: Complete planning and critical point planning is positively correlated to entrepreneurial success while opportunistic and reactive planning is negatively correlated to entrepreneurial success.

It is also pointed out that access to finance is critical to starting new businesses and the implementation of a few simple financial management practices could improve the entrepreneur's ability to access finance and to improve cash flow (GEM, 2003). GEM also found that start-up entrepreneurs do not keep records, cash books or perform proactive debtor management.

This is perhaps a reflection of the poor basic education available to most start-up entrepreneurs. National statistics in South Africa indicate that approximately 70% of maths and science students achieved less than 40% in the 2010 matric examinations (Sunday Times, 10 January 2011). GEM (2010) suggests that, as with maths and science education, knowledge of finance and accounting are also problem areas for entrepreneurs, with serious implications for economic development in South Africa.

Therefore, the following is hypothesised:

H_{4a}: Complete planning and critical point planning have additive effects to entrepreneurial success when added to financial management practices while

opportunistic planning and reactive planning strategies have negative effects to entrepreneurial success when added to financial management practices. Strategy process characteristics have additive effects to entrepreneurial success when added to financial management practices.

Lower level planning strategies such as reactive planning strategy imply very little or no planning, goal setting or proactive behaviour in terms of use of information and actions. Reactive planning strategy implies that the individual is driven by the situation and the environment. Conversely, an individual using complete planning strategy uses extensive planning, goal setting and high-level proactive behaviour. Proactive behaviour is associated with long planning time frames and back-up plans.

Opportunistic planning strategy implies extensive proactive behaviour. However, there is very little planning and goal setting. The opportunistic planning strategy entails significant deviation from planning as opportunities occur.

The concept of strategy process characteristics views strategy-making differently when compared to mainstream management approaches. Strategy process characteristics offer a better understanding of the strategy-making process of the entrepreneur. If the individual is orientated by the situation and the environment, then the strategy implemented by the entrepreneur can either be reactive planning strategy or opportunistic planning strategy. If the orientation is goal-oriented, then the strategy implemented by the entrepreneur can either be complete planning strategy or critical point planning strategy.

The strategy process of the individual is related to the way in which the individual deals with and approaches various situations. Similar concepts have been identified by Hart and Barnbury (1994) who examined strategies in an organisational context. Miles and Snow (1978) used concepts such as 'reactor', 'prospector' and 'analyser' in developing typologies of strategy processes and how these impacted on organisational performance. While the introduction of entrepreneurial actions and strategies present a relatively new perspective on entrepreneurship, they have been pointed out in previous studies that examined mediating and moderating effects in various contexts (Frese, 2000; Krauss, 2003).

Therefore, the following is hypothesised:

H_{4b}: Complete planning strategies mediate the relationship between financial management practices and entrepreneurial success.

H_{4c}: Critical point planning strategies mediate the relationship between financial management practices and entrepreneurial success.

H_{4d}: Opportunistic Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.

H_{4e}: Reactive planning strategies mediate the relationship between financial management practices and entrepreneurial success.

H₅: Complete planning strategies moderate the relationship between financial management practices and entrepreneurial success.

H₆: Critical point planning strategies moderate the relationship between financial management practices and entrepreneurial success.

H₇: Opportunistic planning strategies moderate the relationship between financial management practices and entrepreneurial success.

H₈: Reactive planning strategies moderate the relationship between financial management practices and entrepreneurial success.

H₉: Entrepreneurial orientation moderates the relationship between financial management practices and entrepreneurial success.

2.7 LITERATURE REVIEW CONCLUSION

Table 2.1 below denotes the summary of the hypotheses drawn from the literature .

Table 2.1: SUMMARY OF HYPOTHESES

Hypotheses	
H ₁	Human Capital is positively related to Entrepreneurial Success
H ₂	Financial Management Practices is positively related to Entrepreneurial Success
H _{2a}	Financial Management Practices is positively related to Entrepreneurial Success and is mediated by Human Capital.
H _{2b}	Basic Financial Management Practices is positively related to Entrepreneurial Success and is mediated by Human Capital.
H _{2c}	Advanced Financial Management Practices is positively related to Entrepreneurial Success and is mediated by Human Capital.
H ₃	Entrepreneurial Orientation is positively related to Entrepreneurial Success
H _{3a}	Entrepreneurial Orientation and its components, Innovation, Autonomy, Personal Initiative, Risk-taking, Achievement and Learning have additive effects to Entrepreneurial Success when added to Financial Management Practices.
H _{3b}	Entrepreneurial Orientation mediates the relationship between Basic Financial Management Practices and Entrepreneurial Success
H _{3c}	Entrepreneurial Orientation mediates the relationship between Advanced Financial Management Practices and Entrepreneurial Success
H _{3d}	Entrepreneurial Orientation mediates the relationship between Financial Management Practices and Entrepreneurial Success
H ₄	Complete Planning and Critical Planning is positively related to Entrepreneurial Success while Opportunistic and Reactive Planning is negatively related to Entrepreneurial Success.
H _{4a}	Complete Planning and Critical Point Planning have additive effects to Entrepreneurial Success when added to Financial Management Practices while Opportunistic Planning and Reactive Planning Strategies have negative effects to Entrepreneurial Success when added to Financial Management Practices. Strategy Process Characteristics have additive effects to Entrepreneurial Success when added to Financial Management Practices.
H _{4b}	Complete Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.
H _{4c}	Critical Point Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.
H _{4d}	Opportunistic Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.
H _{4e}	Reactive Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.
H ₅	Complete Planning Strategies moderate the relationship between Financial Management Practices and Entrepreneurial Success
H ₆	Critical Point Planning Strategies moderate the relationship between Financial Management Practices and Entrepreneurial Success
H ₇	Opportunistic Planning Strategies moderate the relationship between Financial Management Practices and Entrepreneurial Success
H ₈	Reactive Planning Strategies moderate the relationship between Financial Management Practices and Entrepreneurial Success.
H ₉	Entrepreneurial Orientation moderates the relationship between Financial Management Practices and Entrepreneurial Success

This chapter examined the development of entrepreneurship research and entrepreneurship theory from multiple perspectives. The formulation and development of theories and models in entrepreneurship research is challenging (Hofer and Bygrave, 1991) and therefore the success model (Frese, 2000) at least presents a start in entrepreneurship research that takes into account multiple perspectives from various disciplines.

The economists' view of entrepreneurship is primarily based on identifying key drivers of economic performance of the economy (Audretsch and Keilbach, 2004). Earlier theories developed by economists focused on risk, supply of financial capital, arbitrage and ownership of the factors of production (Cantillon, 1931; Knight, 1921). Some scholars identified investment in physical capital as the key driving factors (Solow, 1956) while others emphasised the process of the accumulation of knowledge capital (Romer, 1990).

The most profound contribution was made by Schumpeter (1934), whose view of entrepreneurship differed significantly from neoclassical theories in that, while the previous theories emphasise how the manager combined inputs in the production function in order to attain technical efficiency, Schumpeter's theory emphasises how the entrepreneur shifts the production function through innovation. Recent theoretical development in neoclassical theory saw focus on entrepreneurship capital and how it enhances entrepreneurial performance (Audretsch and Keilbach, 2004).

In essence, the economists failed to draw a distinction between management and entrepreneurship and much of the literature relates entrepreneurship with small business start-up and management (Hisrich, 1986).

Many scholars concur that the recognition of opportunities is a vital aspect in entrepreneurship and this is strongly linked to the individual's characteristics (Bygrave and Hofer, 1991). At the same time, much attention has been given to human capital and its relationship to opportunity recognition (Shane, 2000; Shepherd and De Tienne, 2005; Thorpe, Holt, Macpherson and Pittaway, 2005). Scholars argue that entrepreneurs will discover opportunities which are directly related to their knowledge, making human capital a vital aspect in entrepreneurship research.

Findings involving human capital have related it to business success (Rauch and Frese, 2000). Other findings have shown that entrepreneurial actions can mediate the human capital-business success relationship (Frese and Zaph, 1994). Overall, human capital studies have produced mixed results and more research is needed, particularly looking at mediating effects of human capital (Rauch and Frese, 2000).

Entrepreneurship research was dominated by the behaviourists between 1960 and 1980, where the most profound contributions were made by McClelland (1961), who established a relationship between the need for achievement and performance in an organisational context. However, this finding proved to be highly controversial, particularly in relating the need for achievement to the decision to start a new business. Besides the conflicting results that were found, McClelland's overall theory presented significant limitations relating to the methodology.

Subsequently, a number of scholars studied the relationships between the need for achievement and success in entrepreneurship, but no one established conclusive results (Durand and Shea, 1974; Hundall, 1971; Singh and Singh, 1972). The behaviourists predominantly focused on personality traits and characteristics in entrepreneurship research (Hornaday, 1995; Blawatt, 1995; Timmons, 1978). Aspects of the entrepreneur's background characteristics were explored, such as childhood family background, education, age, work history and personal values, but results proved to be inconclusive and few scholars distinguished entrepreneurs from non-entrepreneurs (Hisrich and Brush, 1984; Gasse, 1971; Ronstadt, 1983).

Personality traits, on the other hand, produced mixed results. Some studies found a positive relationship between personality traits and business creation/ business success (Chell, Haworth and Brearley, 1991; Cooper and Gimeno-Gascon, 1992; Rauch and Frese, 2000) while others found no relationship (Brockhaus and Horwitz, 1986; Gartner, 1989; Low and MacMillan, 1988). Some scholars suggest that personality variables have a vital role to play in entrepreneurship research relating to entrepreneurial career intentions (Crant, 1996; Zhao, Seibert and Hills, 2005), entrepreneurial opportunity recognition (Ardichvili, Cardozo and Ray, 2003), entrepreneurial role motivation (Miner, 1993) and new business survival (Ciavarella, Bucholtz, Riordan, Gatewood and Stokes, 2004).

Recent studies have found predictive validity for personality traits (Collins, Hanges and Locke, 2004; Stewart and Roth, 2001; Zhao and Seibert, 2006 in Rauch and Frese, 2007). Overall, personality traits and characteristics have produced mixed results and focused on the relationship between personality and business start-up.

The GEM study (2003) also indicated that there is little research into the linkages between financial management practices and the overall financial health in a “black-owned” business. It is pointed out that start-up businesses require financial resources in order to trade and the lack of access to finance could impact on business growth (Cassar, 2004). Fatoki and Garwe (2010) report that the lack of financial support is the second most significant contributor to low entrepreneurial activity after education and training. Very few start-up entrepreneurs manage to raise bank loans and more than 75% of bank loan applications are declined (Foxcroft *et al.*, 2002). This has resulted in SMEs utilizing their own finance to start and operate businesses.

However, with high rates of poor knowledge of financial management practices, entrepreneurs fail to grow and develop sustainable businesses (GEM, 2003). It is pointed out that managerial competencies are crucial to the survival and growth of SMEs (Fatoki and Garwe, 2010). Similar findings have confirmed that the lack of managerial expertise is one of the primary reasons for business failure (Martin and Staines, 2008).

It has often been pointed out that entrepreneurs lack financial skills to operate and to manage businesses successfully (Mabaso, 2008). However, financial skills form part of one dimension of the range of skills required by entrepreneurs, namely business skills. These skills should be complemented by technical skills and entrepreneurial skills (Ladzani and Van Vuuren, 2000).

Financial management practices suggest that strategy is perceived in the formal sense and is based on strategic management literature which emphasizes a direct correlation to performance. Most research involving strategies in strategic management literature has focused on organisational strategies and performance (Hart and Barnbury, 1994). Scholars have argued that this is one-sided (Rajagopalan, Rasheed and Datta, 1993) and suggest more research on psychological strategies in relation to success in entrepreneurship.

The approach of Frese toward understanding entrepreneurship draws on the action strategy theory introduced by Hacker (1994) and marks a new psychological approach, particularly

where previous approaches focused on personality traits, such as the locus of control. Personality traits have invited substantial criticism from scholars because traits are regarded as being very stable over time. This implied that entrepreneurial training interventions would be discounted and rendered ineffective.

Frese (2000) introduced the Giessen-Amsterdam Model of Entrepreneurial Success to contribute toward understanding the relationship between action strategy and entrepreneurial success. This approach marks a new attempt to understand entrepreneurial action through entrepreneurial orientation (EO) and strategy process characteristics. Few studies have been conducted to gather empirical evidence of this approach, and very little research exists where the impact of action strategies on financial management practices and success has been examined.

Very few studies examined the impact of EO on the success or failure of entrepreneurs. Although Frese (2000) found a significant relationship between EO and success of entrepreneurs in five studies in Southern Africa, there is a lack of empirical evidence that explains the relationship between EO (entrepreneurial skill) and financial management practices (business skill) and success of “black entrepreneurs”.

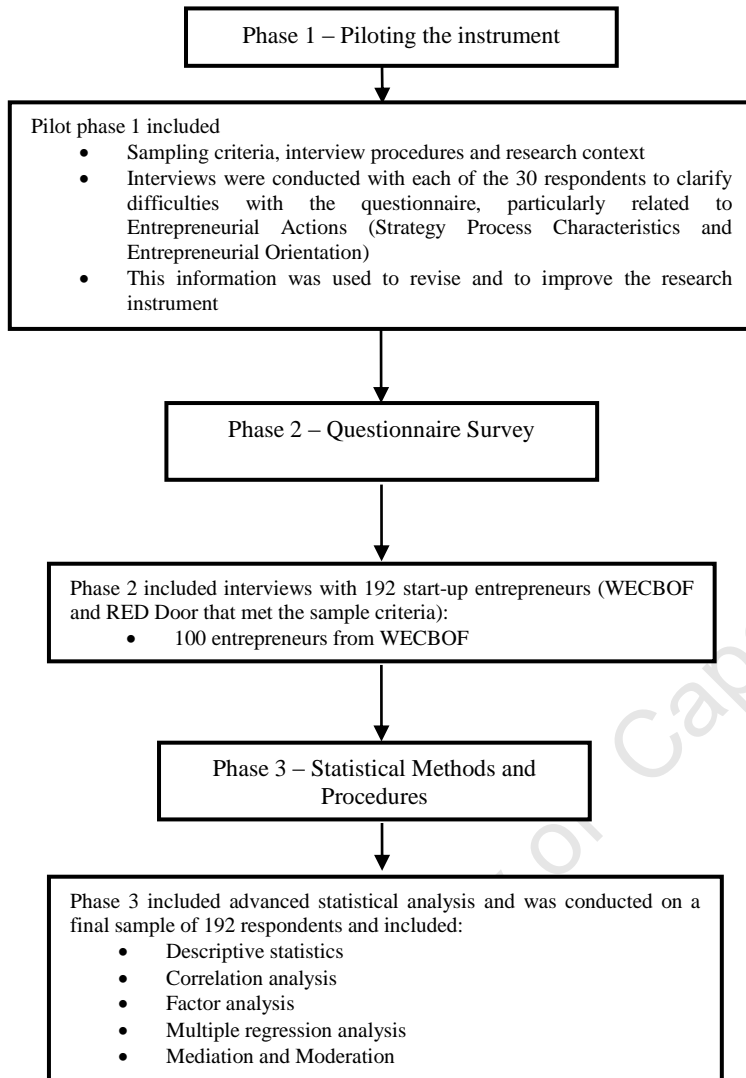
CHAPTER 3: RESEARCH METHODOLOGY

This chapter describes the methodology used for the empirical research conducted in this study. The chapter describes the research context and sampling framework, the research design, data collection procedure, the data handling procedures and administration. The statistical methods used to analyse the data are described, and factor analyses and operationalization of the constructs are discussed.

3.1 RESEARCH PROCESS

The figure below indicates the research process that was followed. The process included research context, sampling criteria, interview procedures, designing the research instrument, conducting pilot tests in order to adjust for refinements and misunderstanding of the questionnaire, the survey, as well as where the sample was obtained and the statistical procedures used to analyse the data.

Figure 2: Research Process



3.2 RESEARCH CONTEXT

All the businesses were based in Cape Town and surrounding business districts and consisted of start-up entrepreneurs operating businesses in trade, manufacturing, services and construction sectors. The businesses were randomly selected from the Western Cape Business Opportunity Forum (WECBOF) and Real Enterprise Development initiative (RED DOOR).

WECBOF is a non-governmental organisation based in the Western Cape that provides business support to its members. RED DOOR is a provincial governmental initiative that aims

to provide business and financial support to start-up entrepreneurs in the Western Cape. Both these organisations provide a wide range of support to start-up entrepreneurs that include assistance with business plans, assessing business health, mentoring and feasibility studies, with the ultimate aim of creating sustainable businesses.

Banking institutions are very conservative in terms of lending criteria and are very selective in granting loans to start-up businesses. Historically disadvantaged entrepreneurs in South Africa often lack sufficient collateral or assets to secure loans, lack sufficient business skills, technical skills and entrepreneurial skills, and consequently fail to secure loans from banks and other financial institutions. Most start-up entrepreneurs therefore often use personal savings or funds from family and friends as the primary means of financing a new business venture. Start-up capital and general access to capital are often a problem for start-up entrepreneurs, particularly historically disadvantaged entrepreneurs. Resultantly, a representative sample was chosen from WECBOF and RED DOOR and it was expected that these entrepreneurs would have experienced lack of access to capital, business skills and entrepreneurial skills.

3.3 SAMPLING CRITERIA

Following the reasoning and example of studies on entrepreneurship in South Africa, particularly by Frese (2000) and Krauss *et al.* (2005), who examined the impact of action strategies on success of start-up entrepreneurs in South Africa, the following sampling criteria were used:

- the firm employed between one and fifty employees;
- start-up entrepreneurs were selected from WECBOF and RED DOOR;
- each participant had to be the founder and owner of the enterprise;
- the entrepreneur is actively involved in the business activities of the enterprise;
- only formal businesses were included in the study; and
- the businesses had to have been in existence for at least one year.

3.3.1 NUMBER OF EMPLOYEES

Only businesses with at least one employee and at most fifty were included in the study. The reason for using businesses with one employee was based on the understanding that the motivation of the entrepreneur was assumed to be substantially different compared to businesses with no employees. Small businesses with at least one employee allow the assumption that the entrepreneur had more responsibility, such as meeting a monthly salary bill. Furthermore, entrepreneurs without any employees have a very different psychological situation than owners who employ at least one person. It is much more difficult for an entrepreneur to close down a business if he or she has to let employees go compared to an individual just packing up and doing something else.

In small businesses with more than fifty employees, there tends to be a considerable change in the structure of the organisation (compared to smaller organisations), where the influence of the entrepreneur becomes significantly diluted and the culture of the organisation becomes more prevalent.

By studying entrepreneurs where the number of employees was between one and fifty employees, the motivations of the entrepreneur can be better determined (Frese, 2000).

3.3.2 START-UP/EMERGING ENTREPRENEURS

The government has identified the development of the small business sector, especially in previously disadvantaged communities, as key to the success of any broad-based economic empowerment programme (DTI, 2008). In terms of the National Small Business Act of 1996, government has made the development and capacitating of SMEs a national priority in order to grow employment and economic development.

GEM (2003) investigated the financial management practices of formal, “black-owned” small businesses and their impact on access to finance and overall financial health. Financial management in “black-owned” firms is an area that warrants significant development and, not surprisingly, the report confirmed that cash constraints are widespread. The main reasons

reported for the lack of access to finance are the lack of sufficient collateral as well as poor understanding by the banks of the unique needs and requirements of small businesses.

As stated, RED DOOR represents an initiative by the government to provide business support services to entrepreneurs in the rural and urban areas of the Western Cape. Although a number of entrepreneurs have been supported through this programme, other entrepreneurs have failed and many are merely surviving (RED DOOR Indaba Report, 2007). One of the major areas of development that RED DOOR has focused on is capacitating start-up/emerging entrepreneurs with financial management skills in order to boost their business skills to build sustainable businesses. Therefore, 'start-up/emerging entrepreneurs' have been chosen as one of the selection criteria for this study.

3.3.3. FOUNDERS OF THE FIRMS

The focus of this study is on entrepreneurs that operate micro and small enterprises, typically employing between one and fifty employees. The creators of small firms are regarded as the founders. Gartner (1988) describes entrepreneurship as the creation of new firms where the entrepreneurs are the founders of these new firms. Some scholars and researchers argue that this definition may imply that entrepreneurship ends when a business is started. Therefore, the terms 'founding', 'owning' and 'managing' firms are regarded as important aspects in entrepreneurship.

Scholars differentiate between entrepreneurs and small business owners suggesting that their motivation should not be the same. Similarly, the distinction is drawn between managers of small firms and entrepreneurs, where the motivation should also be different. Only the founders or owners of small businesses were included in the study. Managers were excluded from the study on the assumption that their motivation was significantly different. Hisrich (1990) pointed out that managers may be entrepreneurial to a certain extent but they typically work with other people's money and not with their own. They can leave the organisation and work somewhere else. This suggests that managers would have a different attitude or motivation compared to entrepreneurs.

There are also small firms created as non-profit entities that were also created by entrepreneurs. Hence, entrepreneurship is not merely about investing time, effort, capital and risk in order to realize profits, but there could also be social aims such as community development and economic upliftment of the poor.

3.3.4 FORMAL BUSINESS

Start-up firms in developing countries may be formal (registered) or informal (non-registered) businesses. 'Formal businesses' implies that the business is formally registered, has fixed premises and complies with the necessary formal requirements (such as registration for taxation and registered employees). The study sought to examine the extent of financial management practices in micro- and small businesses. These were expected to be more prevalent in formal businesses, since these businesses need to present business plans that include cash flow projections and balance sheets in order to obtain support from RED DOOR and banks. Therefore only formal businesses (SMEs) were included in the sample for this study.

3.4 LEVEL OF ANALYSIS

The independent variables studied in large firms are considerably different from independent variables in small firms, particularly when studying success factors (Klein and Sorra, 1996). For example, four or five employees in a small firm may have a stronger influence on the corporate culture and company policy than in larger firms, where individual employees have a less significant impact. Studies conducted by Van Gelderen and Ombach (1998) have shown that an individual level of analysis focusing on the personality, human capital, goals, strategies and environment of the individual owner can be used more effectively to predict the success of small firms. This study aimed at analysing the entrepreneurial actions of the individual entrepreneur and not the firm.

3.5 OVERALL RESEARCH DESIGN

The overall research design of this study entailed a survey research method and drew from the procedures for conducting research of small businesses in Southern Africa developed by Frese and Krauss *et al.* (2005). Hence, the construction of the instrument draws significantly on the work done by Frese and Krauss (2003) and the instrument was adapted for purposes of this study. This study has a cross-sectional design and involved a sample of 192 entrepreneurs that was obtained between March 2007 and August 2008.

3.6 INTERVIEW PROCEDURES

After randomly selecting the respondents from the databases, appointments were set up with the respondents in order to conduct interviews. Some of the challenges that were faced during this phase entailed entrepreneurs who did not honour appointments, often resulting in wasting of resources through rescheduling of appointments and transportation costs. Other respondents did not reply after numerous messages were left by the interviewer. Addresses and phone numbers were often outdated and entrepreneurs not contactable.

Arranging interviews with entrepreneurs required patience and tact. However, it was noteworthy that entrepreneurs who were more strategically involved in the business were more likely to honour appointments. These entrepreneurs had delegated most of the operational activities to managers or personal assistants and in the process freed up more time to focus on a wider range of business issues.

The interviewers ensured that only the owners or founders were interviewed. All the interviews were conducted in Cape Town. Most interviews were conducted at the business premises but there were entrepreneurs who were very busy and requested to meet at more convenient neutral venues. Every attempt was made in the study to allow for participation by the respondents.

Semi-structured interviews were used for data collection. The purpose of using a semi-structured interview procedure is to obtain descriptions of the interviewee's world or perspective that can be used to better describe the phenomenon. In the case of ambiguity or lack of understanding pertaining to the questions, the questions were explained to ensure that

the respondents understood the questions. All interviews were conducted in English. All subjects were asked the same starting questions and a numerical coding scheme was used to rate the responses. 5-point Likert scales were used as the primary measuring scales.

Most interviews lasted between 85 and 120 minutes. The interviewer wrote down the answers as verbatim as possible in detailed notes. Prompts were used to clarify answers and to obtain more in-depth information from the respondents. The primary purpose of the interview was to ascertain strategy process characteristics, entrepreneurial orientation, the extent of financial management practices and the degree of success of the respondents. Immediately following the interview, an evaluation questionnaire was completed, which assessed the interviewers' impressions on success factors.

Due to the fact that strategy process characteristics are generally difficult to measure, a special technique was integrated in the interview procedure that entailed the presentation of stimulus material to the respondents. The stimulus material was a set of cards bearing various objectives that are commonly associated with business objectives of start-up businesses. Entrepreneurs were asked to describe in detail the goals and sub-goals of the cards that were selected. For example, if they chose a card relating to “developing a new marketing strategy”, the entrepreneur would describe in as much detail as possible the general goals and strategies he or she associated with reaching and achieving such goals. An external rater was used to rate strategy process characteristics.

Strategy process characteristics relate to the sequence of actions that respondents would carry out in terms of action strategy, in pursuit of certain objectives within the business. This method has been pointed out to be an effective way of determining the dominant strategy process characteristic of the individual (Frese and Brantjes, 2003). Due to the complex nature of this process, this method allows the respondent to relate the sequence of actions in pursuit of the goals as a result of the stimulus presented, which would otherwise not be possible. The strategy characteristics and some of the success measures were better ascertained in an interview than in a questionnaire because the interviews allowed for deeper probing of the answers.

3.7 PHASE 1 - INITIAL PILOT STUDY (ASSESSMENT OF VALIDITY AND RELIABILITY)

The main variables used in the initial pilot study included goal setting, strategy process characteristics, financial management practices, environment, entrepreneurial orientation and success. In phase 1 only key variables were used due to time constraints. This resulted in limited time available for participation in the interviews. The testing of the new variable, financial management practices, compensated for the limited time spent on the interviews. Although personality was used as a variable in the initial success model, it was excluded from the model in this study because the focus was specifically on understanding and examining entrepreneurial actions of the entrepreneur. Human capital was also excluded at this stage of the study because of the time constraints as mentioned above.

Goal setting is important in entrepreneurship research and represents a point of reference to the entrepreneur against which the entrepreneur can measure whether certain targets were achieved. Goal setting is an integral component of planning and could be useful in complex environments. Initially goal setting was tested independently of strategy process characteristics. However, due to the fact that goal setting is closely related to planning, it was a component of strategy process characteristics (complete planning, critical point planning, opportunistic planning and reactive planning).

Strategy process characteristics was a key variable in this study and was used to study entrepreneurial actions and not personality. Initially, this variable was tested as a single construct with specific focus on proactiveness, detailed planning, level of knowledge, top down planning and situational responsiveness ($\alpha = .85$). The purpose of using a single construct was to provide a basis to construct four action templates, namely, complete planning, critical point planning, opportunistic and reactive strategies.

Entrepreneurial orientation was also a key variable in this study and was chosen as a measure of attitude and motivation. Entrepreneurial orientation included six variables - innovation, learning orientation, personal initiative, autonomy, risk and achievement ($\alpha = .87$).

Financial management practices represented a specific content strategy. Initially eight items were chosen to make up a single construct and included accounts receivable maintained, cash

book maintained, inventory records maintained, proactive debtors management, proactive cash management, cash flow projection, budgeting and pricing ($\alpha = .84$).

Environmental factors are important for studies involving strategies. However, it was assumed that the environmental conditions did not imply extreme conditions since it is widely accepted that entrepreneurs operate largely in uncertain environments. Environment consisted of seven items and included environmental friendliness, environmental complexity, environmental hostility 1, environmental hostility 2, environmental dynamism, environmental controllability and environmental predictability ($\alpha = .85$).

Entrepreneurial success was the dependent variable and consisted of fifteen items. These items included subjective success where the entrepreneurs rated themselves to other entrepreneurs, sales growth success, client growth success, profit growth and employee growth ($\alpha = .86$).

A pilot study was conducted that involved a total of thirty entrepreneurs chosen from the WECBOF database. Ten of these entrepreneurs had been nominated for 'The Entrepreneur of the Year' award in 2007. Hence, the total of thirty entrepreneurs selected represented a combination of high performing as well as average performing entrepreneurs. These entrepreneurs represented a cross-section of trade, manufacturing, services and construction industries.

The purpose of the pilot study was to test the reliability and validity of the questionnaire and to make adjustments if required. This method particularly examined the content validity and construct validity of the main constructs. The content validity tested the degree to which the instrument assessed all the relevant aspects of the main concepts that the instrument was intended to measure. The construct validity tested the degree to which a given measure assessed the underlying conceptual variable that the measure was intended to measure. The thoroughness of the instrument involved experts' judgments in the field as well as multivariate statistical procedures (factor analysis).

Extraction indicators are estimates of the variance in each variable accounted for by the components. If the extraction indicators are all high, then the extracted components represent the variables well. On the other hand, when any extraction indicators are very low, then the

extracted components are not representing the variables well. Extraction factors below .50 are indications that some variables should be dropped (Pallant, 2006).

The pilot study also allowed for preliminary examination of the reliability of the instrument. The procedure for establishing reliability of the instrument entailed the assessment of the degree of consistency between multiple measures of the constructs. The reliability measure that was used related to the internal consistency which applied to the consistency among the variables. The aim of internal consistency was that individual items of the scales measured the same construct and indicated high correlation values between items.

Reliability measures included several measures relating to each separate item and entailed inter-item correlation (correlation among items). It is suggested as a rule of thumb that the inter-item correlation exceed 0.30 to reflect satisfactory reliability measures. Secondly, entire scales were tested where the reliability coefficient had to reflect a lower limit of 0.70 (Cronbach, 1951).

The tables below indicate some of the initial results of the pilot study relating to factor analysis and reliability testing. The Cronbach's Alpha coefficients and extraction values are described below and relate to the main variables in the study.

Table 3.2: Goal Setting

Cronbach's Alpha = .72	<i>Factor loadings</i>
Goal Difficulty	.68
Goal Specificity	.83
Goal Realism	.81
Time frame	.77

Table 3.3: Strategy Process Characteristics

Cronbach's Alpha = .85	<i>Factor loadings</i>
Level of Proactiveness	.80
Level of Top-down Planning	.92
Level of Detailed Planning	.91
Level of Knowledge	.71
Problem responsiveness	.79

Table 3.4: Entrepreneurial Orientation

Cronbach's Alpha = .87	Factor loadings
Innovation	.83
Learning orientation	.87
Need for achievement	.74
Personal initiative	.80
Risk-taking	.83
Autonomy	.89

Table 3.5: Financial Management

Cronbach's Alpha = .84	Factor loadings
Accounts receivable maintained	.81
Cash Book maintained	.83
Inventory records maintained	.69
Proactive debtors management	.91
Proactive cash management	.92
Cash Flow projection	.70
Budget	.92
Pricing Strategy	.92

Table 3.6: Environment

Cronbach's Alpha = .85	Factor loadings
Environmental friendliness	.80
Environmental complexity	.94
Environmental hostility 1	.96
Environmental hostility 2	.93
Environmental dynamism	.91
Environmental controllability	.88
Environmental predictability	.81

Table 3.7: Entrepreneurial Success

Cronbach's Alpha = .86	Factor loadings
Subjective Success1	.82
Subjective Success2	.81
Subjective Success 3	.76
Sales 2005 to 2006	.80
Sales 2006 to 2007	.71
3 Year Sales growth	.72
Profit 2005 to 2006	.80
Profit 2006 to 2007	.84
3 Year Profit growth	.86
Employees 2005 to 2006	.78
Employee 2006 to 2007	.90
Employees 3 Year growth	.89
Clients 2005 to 2006	.86
Clients 2006 to 2007	.91
Clients 3 Year growth	.90

In summary, the pilot phase allowed for refinement of the questionnaire and aspects that needed further clarification. Overall, the tables above indicated that the extraction indicators of all the main variables were above .50 and represented the variables well. Cronbach's Alpha coefficients were above .70 and met the condition for internal consistency (Pallant, 2006).

3.8 PHASE 2 – QUESTIONNAIRE SURVEY

During phase 2, a sample was surveyed that consisted of 192 respondents (100 respondents were selected from WECBOF and 92 respondents were selected from RED DOOR). Chapter 4 provides a detailed description of the sample included in this study as well as scale characteristics of the main variables that were included in the study.

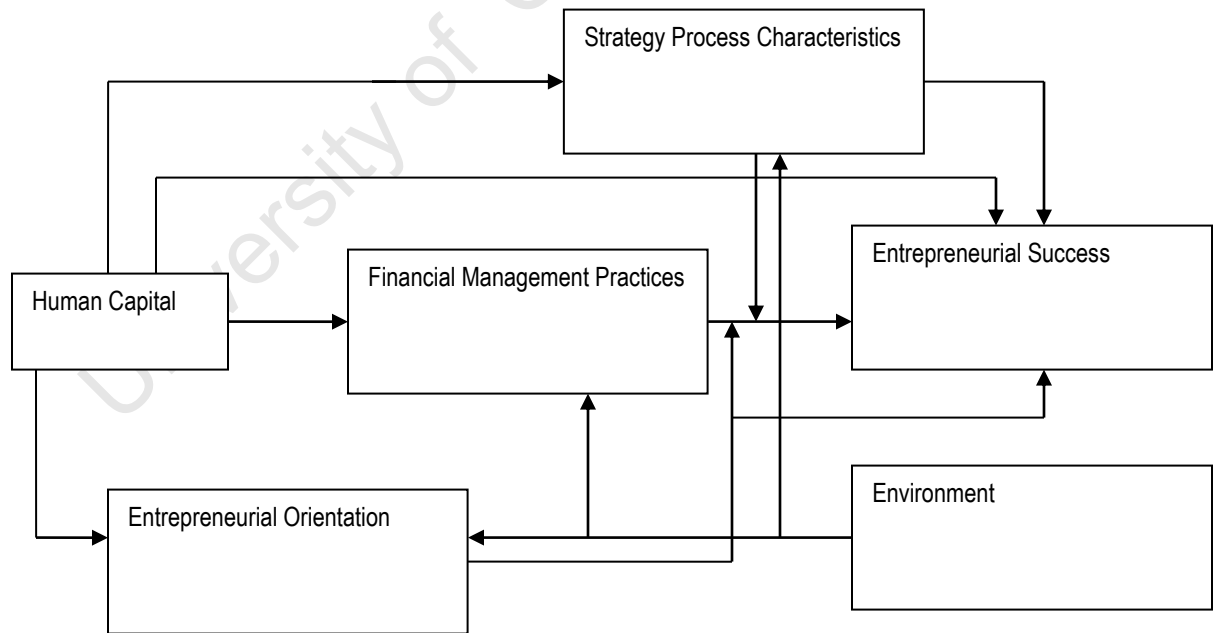
In 2008, the researcher conducted an impact study on the quality of business support services provided by RED DOOR. This entailed a review of all the existing business support programmes that were implemented between 2006 and 2008. One of the programme interventions, RED Tracker, involved tracking micro and small businesses that received business support services from RED DOOR and allowed the researcher to access such entrepreneurs (Small and Basardien, 2008). Therefore, the 92 entrepreneurs that were included

in the sample were evaluated in relation to entrepreneurial success as a result of business support services obtained through RED DOOR.

3.9 CONSTRUCT OPERATIONALISATION OF EVALUATION OF MEASUREMENT PROPERTIES

The model below illustrates the conceptual model of entrepreneurial success that was used to examine the impact of strategy process characteristics, entrepreneurial orientation and financial management practices on entrepreneurial success. This model builds on the Giessen-Amsterdam Model of Entrepreneurial Success and introduces a new variable, ‘financial management practices’, into the framework and examines the impact of entrepreneurial strategies and actions through mediating and moderation effects.

Figure 3: Proposed Success Model



This section describes characteristics of the constructs used in this study. The theoretical concepts were assigned to measurable indicators in order to obtain a measure. The primary

scales used in this study were 5-point Likert scales to measure the independent and the dependent variables. In some cases the scale items and constructs were adapted or modified for the purposes of this study. All new scales in the study were subjected to factor analysis in order to determine the appropriateness and relevance for the variables included in the study.

The study comprised five independent variables and one dependent variable (see Figure 3). The study examined the impact of strategy process characteristics and entrepreneurial orientation on the relationship between financial management practices and entrepreneurial success. Many of the construct scales were retained for purposes of this study, particularly related to entrepreneurial orientation as it was used extensively in Southern African countries.

3.9.1 ENTREPRENEURIAL ORIENTATION

The relationship between individual level entrepreneurial orientation and performance has been determined in previous studies to be significant (Frese, 2000). Most studies, however, have focused on determining the relationship between organisational level entrepreneurial orientation and performance (Covin and Slevin, 1996). Furthermore, entrepreneurial orientation in an organisational context has been used to distinguish managers from business owners. For example, Lumpkin and Dess (1996) noted a distinction between entrepreneurial orientation and entrepreneurship by suggesting that individual level entrepreneurial orientation represents specific key entrepreneurial processes in terms of how new ventures are started and how growth is pursued.

Miller (1983) used the constructs of entrepreneurial orientation and changed them into firm concepts such as firm performance. Although Miller's (1983) definition can be broken down into four dimensions, namely, innovativeness, risk-taking, proactiveness, and competitive aggressiveness, many studies have identified and examined only three of the dimensions of entrepreneurial orientation: innovativeness, risk-taking and proactiveness.

A few studies were conducted on the relationship between individual-level entrepreneurial orientation and performance in Southern Africa. More attention has been given to determining the entrepreneurial potential of SMEs in South Africa. In a very recent study, Callaghan and

Venter (2011) found EO to be very useful in understanding entrepreneurship, particularly of start-up entrepreneurs.

The study entailed a quantitative approach involving 308 start-up entrepreneurs in Johannesburg. The emphasis of the study was to determine which factors shape EO and secondly, the impact of EO on performance. Structured questionnaires were administered to the respondents in the study. The various dimensions of EO were measured using a 5-point Likert scale. EO consisted of continuance satisfaction, innovativeness, competitive aggressiveness, autonomy, risk-taking and proactiveness. The Cronbach's Alphas for the dimensions of entrepreneurial orientation were as follows: continuance satisfaction (0.74), innovativeness (0.76), competitive aggressiveness (0.70), autonomy (0.97), risk-taking propensity (0.61648) and proactiveness (0.72) (Callaghan and Venter, 2011).

Over the last decade, extensive research has been conducted in Southern Africa where the impact of EO has been measured against performance at the individual level of analysis (Krauss, 2003; Krauss *et al.*, 2005). Entrepreneurial orientation consisted of innovation, personal initiative, competitive aggressiveness, autonomy, risk-taking, learning orientation and achievement orientation. There are gaps that exist relating to examining the mediating and moderating impact of individual-level entrepreneurial orientation on the relationship between financial management practices and entrepreneurial success (Krauss, 2003; Krauss *et al.*, 2005).

Individual-level entrepreneurial orientation has been derived from entrepreneurial orientation in an organisational context in order to understand personal orientations of individuals and the motivation behind entrepreneurial actions. Kanfer (1992) examined the importance of individual-level entrepreneurial orientation and distinguished it from trait theory. He suggested that individual-level entrepreneurial orientation can be used to obtain an understanding of entrepreneurial actions and to introduce it into training programmes. Kanfer (1992) further pointed out that while personality traits are very stable over time and cannot easily be changed; constructs of individual-level entrepreneurial orientation can be changed through interventions.

Covin and Slevin's (1986) measure of entrepreneurial orientation is focused on risk-taking, innovation and proactiveness and has been adapted from Miller and Friesen's (1982) and

Khandwalla's (1976/77) work. This measure tends to be subjective and is based on self-reports by individuals, mostly owners and managing directors (Zahra, Jennings and Kuratko, 1999).

The closest measure to determine entrepreneurial attitude and motivation over the past 15 years has been the Entrepreneurial Attitude Orientation Scale which was developed and tested by Robinson, Stimpson, Huefner and Hunt (1991). This scale was used to measure entrepreneurial attitudes and consisted of four subscales, namely, achievement, innovation, personal control and self-esteem.

Individual-level entrepreneurial orientation in this study draws on the work done by Krauss (2003) who examined entrepreneurial orientation and business performance. Krauss conceptualized individual-level entrepreneurial orientation as innovation, learning orientation, achievement orientation, risk-taking, personal initiative and autonomy. A three-step procedure was used in this study to measure individual-level entrepreneurial orientation. The first step was to employ different methods in order to obtain the measurements of the constructs on entrepreneurial orientation. These methods entailed interviews, questionnaires and interviewer evaluation. The sub-constructs of individual-level entrepreneurial orientation were innovation, autonomy, personal initiative, achievement orientation, learning orientation and risk-taking.

Innovation was measured via interviews and questionnaires and consisted of nine items. Respondents were asked their plans for changing their product/ service mix over the following twelve months. They were asked to motivate the reasons for wanting to change their product/ service mix. Respondents were also asked whether they had an innovative idea over the preceding two years and how the idea was generated. Finally, respondents were asked where the idea originated. All measures were measured by 5-point Likert scales.

Autonomy, achievement orientation and risk-taking measures were obtained by interviews and questionnaires and 5-point Likert scales were used. Autonomy consisted of six items and respondents were asked if they would accept a job from an organisation without a reduction in income as opposed to working for themselves. Secondly, they were asked about growth-oriented goals for the business or whether they were in business merely to earn a living.

Achievement orientation consisted of seven items and these measures were obtained via a 5-point Likert scale. Respondents were asked about their orientation relating to work, perseverance, diligence and the extent to which they would go in pursuit of a goal.

Risk-taking consisted of eight items and was obtained via a 5-point Likert scale. Risk-taking was based on a questionnaire by Gomez-Mejia and Balkin (1989; adapted to the entrepreneurial context by Norton and Moore, 1998).

Personal initiative was measured via the overcoming barriers approach by Frese, Fay, Hilburger, Leng and Tag (1997) and was done through the interview procedure. Personal initiative consisted of seven items and was obtained by interviews and questionnaires. This method has been pointed out to have good construct validity (Fay and Frese, 2001; Latham and Saari, 1984). The respondents were presented five situations that were relevant to a business situation for business owners and were required to present feasible solutions to each situation. Whenever the respondents presented a solution, they were told to imagine that the solution did not work and that they needed to come up with a new solution.

Learning orientation was an important component of entrepreneurial orientation since knowledge base was included as part of strategy process characteristics. The improvement of certain methods and entrepreneurial actions should be based on the entrepreneur's ability to learn from previous actions and errors. Thus learning orientation implies learning from experience and development of mental models that impact on effective decision making. This has been vigorously argued and emphasized through the positive impact of a learning culture within firms (Argyris, 1992). In addition, learning orientation is important since there are many tasks where entrepreneurs do not receive explicit and formal training, such as record-keeping and maintaining cash books. Learning orientation consisted of nine items.

The second step of the procedure entailed the combination of the multiple measures obtained through the interview, questionnaire and interviewer evaluation methods. The measures obtained for innovation, personal initiative, autonomy, learning orientation, risk-taking and achievement orientation were combined into single measures. The third step entailed the combination of all six components into one single overall measure of individual-level entrepreneurial orientation.

The tables below indicate the results of factor analysis and Varimax rotational techniques for the main variables used in this study. Factor loading and r-value coefficients are presented in the tables below (for detailed factor analyses, refer to **Appendix A**). Scholars generally agree that the limit for factor loading should exceed .80 with sample sizes over 300, although a limit of .70 may be considered for sample sizes over 150 cases (Hair, Anderson, Tatham and Black, 1998). Tabachnick and Fidell (2001) suggest that r-values in factor analysis should exceed .30 in order to be appropriate in factor analysis. Furthermore, it is suggested that Kaiser-Meyer-Olkin coefficients must exceed .60 in order to be regarded as appropriate in factor analysis (Tabachnik and Fidell, 2001).

Table 3.8: Entrepreneurial Orientation

Items, Cronbach's Alpha, Descriptive Statistics and Factor Analysis (Principal Components Analysis – Varimax Rotated) Results: Factor loadings and r-correlation coefficient

Items	Factor Loading	r – correlation coefficient				
Need for Achievement	.93	> .3				
Autonomy	.91	> .3				
Personal Initiative	.84	> .3				
Learning Orientation	.79	> .3				
Risk Orientation	.77	> .3				
Innovation	.72	> .3				
Cronbach's Alpha Coefficient = .82						
Variable	Mean	Median	Standard Deviation	Minimum	Maximum	Kaiser-Meyer-Olkin value
Entrepreneurial Orientation	3.22	2.88	1.132	1	5	.78

3.9.2 STRATEGY PROCESS CHARACTERISTICS

By using psychological process conceptualization of strategy it has been pointed out that more could be learned about strategies from small business owners (Rajagopalan, 1993). Recently, it was observed out that not all people who intend to start a business accomplish the necessary tasks and realise their goal of creating a new firm (Gielniek, 2010). In another study, 12% to 23% of nascent entrepreneurs succeeded in creating a new business (Reynolds and Curtin, 2008). It therefore makes sense to determine the reasons why some entrepreneurs are more

successful than others in identifying and exploiting a business opportunity and why some attain a full transition from a nascent to an established business.

Strategy process characteristics are regarded as general action templates of entrepreneurs. These strategy process characteristics have been shown to differ from personality or trait variables, and this approach studies the entrepreneurial action and not the personality (Hacker, 1986; Frese and Zaph, 1994).

Action plans are mental simulations of actions by entrepreneurs that determine the sequence of operational steps to achieve a set of goals (Frese, 2009). Action plans are unique and distinct from business plans. While business plans can be considered to be written documents that illustrate the current state and projected future of an organisation (Honig and Karlsson, 2004), action plans refer to lists of activities that are necessary for achieving goals and that are often not formally recorded (Frese *et al.*, 2007). Furthermore, business plans are sometimes written by business consultants and may not capture the entrepreneur's vision and plans.

Process characteristics have been classified into four areas, namely: complete planning, critical point planning, opportunistic planning and reactive planning strategies (Frese, 2000). Van Gelderen *et al.* (2000) showed that interviews enable one to probe deeper into the answers provided by respondents and this makes it a more effective procedure than a questionnaire. Van Gelderen *et al.* (2000) found inter-rater reliability measures of between 0.63 and 0.90 for strategy process characteristics and regarded these as acceptable.

Respondents were presented with cards describing typical business-oriented goals and were required to arrange them in order of importance, from most important to least important. The cards were used as a stimulus in order to obtain deeper probing into classification of action templates mentioned above. The cards contained goals such as 'new marketing strategy', 'profit', 'expanding', etc.

After arranging the cards, respondents were asked to describe the targets in terms of two of the most important goals. The respondents were then asked to describe in detail how they would go about achieving the goals. The technique used resulted in the respondents describing the general goal or targets in the business and sub-goals, and how they would go about to achieve them. Entrepreneurs would describe how they would go about achieving the aforementioned

targets (i.e. the entrepreneurial process) and the interviewer could determine the strategy process characteristic involved in the entrepreneurial process.

A discretionary decision was made to end the interview if enough information was presented to arrive at a strategy process characteristic measure. After the interview detailed notes were made to describe the entrepreneurial action/s of the respondent and an independent rater was used to provide a rating. One independent rater and the interviewer independently rated complete planning, critical point planning, opportunistic planning and reactive planning. These measures were obtained by interview procedure and the respondents were rated in terms of planning, time frame, knowledge, goal difficulty, goal specificity, goal measurability, situational responses and level of proactiveness with 5-point Likert scales to form a an overall measure of strategy process characteristics.

Table 3.9: Strategy Process Characteristics

Items, Cronbach's Alpha, Descriptive Statistics and Factor Analysis (Principal Components Analysis – Varimax Rotated) Results: Factor loadings and r-correlation coefficient

Items	Factor Loading	r – correlation coefficient				
Detail of planning	.82	> .3				
Goal specificity	.89	> .3				
Goal difficulty	.89	> .3				
Goal measurability	.83	> .3				
Time frame	.79	> .3				
Knowledge base	.78	> .3				
Level of proactiveness	.80	> .3				
Situational response level	.72	> .3				
Cronbach's Alpha Coefficient = .82						
Variable	Mean	Median	Std dev	Minimum	Maximum	Kaiser-Meyer-Olkin value
Strategy Process Characteristics	2.17	2.02	1.105	1	5	.81

Table 3.10: Criteria For Evaluating Strategy Process Characteristics

Strategy	Goal orientation	Planning	Goal specificity	Goal measurability	Time frame	Knowledge base	Proactiveness	Situation response
Complete planning	High	Very detailed	Highly specific	Highly measurable	Long term	Wide	High	Very low
Critical point planning	Medium to high	Medium to very detailed	Highly specific	Highly measurable	Short to medium	Moderate	Medium	Moderate
Opportunistic planning	Low	Little detail	Some specificity	Little	Little	Moderate	High	High
Reactive planning	Very low	Very little detail	Not specific	Very little	Very low	Narrow	Very low	Very high

Based on Table 3.10, eight criteria were used to rate specific action template measures such as complete planning, critical point planning, opportunistic planning and reactive planning strategies. Four action templates were constructed on the basis of the criteria mentioned in Table 3.10 and are briefly described below.

3.9.2.1 COMPLETE PLANNING STRATEGY

Complete planning strategy represents the highest level of strategy process characteristics and entails a strong goal setting ability, very detailed and long-term planning, a wide span of knowledge and a high level of proactiveness (Frese and Zaph, 1994). This measure was rated by the interviewer as well as the independent rater and intra-class coefficients are described in Chapter 4.

Table 3.11: Complete Planning Strategy

Items	Factor Loading	r – correlation coefficient				
Interviewer	.81	> .3				
External rater	.78	> .3				
Detail of planning	.84	> .3				
Goal specificity	.87	> .3				
Goal difficulty	.85	> .3				
Goal measurability	.91	> .3				
Time frame	.88	> .3				
Knowledge	.86	> .3				
Proactiveness	.91	> .3				
Situational responsiveness	.89	> .3				
Cronbach's Alpha Coefficient = .86						
Variable	Mean	Std dev	Inter-rater	Minimum	Maximum	Kaiser-Meyer-Olkin value
Complete planning	2.95	1.38	.88	1	5	.79

3.9.2.2 CRITICAL POINT PLANNING STRATEGY

Critical point planning strategy represents the second level of strategy process characteristics and entails strong goal setting ability, although the goal setting is not as detailed as complete planning strategy because the entrepreneur focuses on the most important issues first. Once the most important issues are completed, the entrepreneur continues to approach the next objective. This approach is regarded as the more economical of the two. Lumpkin and Dess (1996) have also pointed out that this strategy is simple and well suited to entrepreneurs. This measure was rated by the interviewer as well as the independent rater and intra-class coefficients are described in Chapter 4.

Table 3. 12: Critical Point Planning Strategy

Items	Factor Loading	r – correlation coefficient				
Interviewer	.89	> .3				
External rater	.91	> .3				
Detail of planning	.91	> .3				
Goal specificity	.89	> .3				
Goal difficulty	.89	> .3				
Goal measurability	.82	> .3				
Time frame	.81	> .3				
Knowledge	.83	> .3				
Proactiveness	.82	> .3				
Situational responsiveness	.86	> .3				
Cronbach's Alpha Coefficient = .86						
Variable	Mean	Std dev	Inter-rater	Minimum	Maximum	Kaiser-Meyer-Olkin value
Critical point planning	2.88	1.32	.81	1	5	.80

3.9.2.3 OPPORTUNISTIC PLANNING STRATEGY

Opportunistic planning strategy represents the third level of strategy process characteristics and entails no planning, very little goal setting and a high level of proactiveness. The entrepreneur classified in this category tends to easily move attention and focus on new opportunities without realizing the completion of one issue. This measure was rated by the interviewer as well as the independent rater and intra-class coefficients are described in Chapter 4.

Table 3.13: Opportunistic Strategy

Items	Factor Loading	r – correlation coefficient				
Interviewer	.92	> .3				
External rater	.88	> .3				
Detail of planning	.87	> .3				
Goal specificity	.91	> .3				
Goal difficulty	.92	> .3				
Goal measurability	.93	> .3				
Time frame	.92	> .3				
Knowledge	.91	> .3				
Proactiveness	.88	> .3				
Situational responsiveness	.82	> .3				
Cronbach's Alpha Coefficient = .87						
Variable	Mean	Std dev	Inter-rater	Minimum	Maximum	Kaiser-Meyer-Olkin value
Opportunistic strategy	2.90	1.38	.83	1	5	.81

3.9.2.4 REACTIVE PLANNING STRATEGY

Reactive planning strategy represents the lowest level of strategy process characteristics and entails no planning, no goal setting and no proactiveness. This is the least recommended strategy and has been closely associated with business failure. This measure was rated by the interviewer as well as the independent rater and intra-class coefficients are described in Chapter 4.

Table 3.14: Reactive Strategy

Items	Factor Loading	r – correlation coefficient				
Interviewer	.87	> .3				
External rater	.84	> .3				
Detail of planning	.91	> .3				
Goal specificity	.87	> .3				
Goal difficulty	.85	> .3				
Goal measurability	.82	> .3				
Time frame	.83	> .3				
Knowledge	.86	> .3				
Proactiveness	.89	> .3				
Situational responsiveness	.90	> .3				
Cronbach's Alpha Coefficient = .86						
Variable	Mean	Standard Deviation	Inter-rater	Minimum	Maximum	Kaiser-Meyer-Olkin value
Reactive strategy	2.96	1.35	.87	1	5	.784

3.9.3 FINANCIAL MANAGEMENT PRACTICES

In South Africa very limited research is done in this specific research field. Financial management practices is discussed again in this section, however, the emphasis is on presenting other studies in relation to how financial management was used as an appropriate measure. The case for finance and financial management skills in entrepreneurship is compelling, all the more so as South Africa has one of the lowest entrepreneurial rates compared to other developing economies, coupled with the fact that start-up entrepreneurs have low financial management skills (Kotze and Smit, 2008). Kotze and Smit's study also highlights the fact that the majority of start-up entrepreneurs utilise personal funds as a major source of start-up capital and emphasises that financial illiteracy impacts directly on the management of finances in the business. This underlines the fact that, while access to finance is very limited for start-up entrepreneurs, proper management of funds in the business is critical in order to ensure stable cash flow.

The sample in the study consists of 286 respondents and 65.4% had tertiary qualifications. Financial literacy was measured through a five-point Likert scale. The study further indicates that financial literacy is a necessity for entrepreneurial advancement in South Africa, and a prevailing culture of high levels of debt, and consequently low levels of savings, could restrain

the development of entrepreneurial activity in South Africa (Kotze and Smit, 2008). According to the study the total monthly percentage paid to all sources of debt is 62.1% leaving 37.9% of the disposable income for general monthly expenditures and savings. This is not only problematic for entrepreneurial advancement in South Africa but also for economic growth and development.

Financial management in SMEs is not merely important to access finance from banks and related institutions but also for managing finance and ensuring a stable cash flow. According to Zimmer and Gray (1985) most SMEs are undercapitalized and utilise personal savings as the main source to start-up or expand a business. Furthermore, most of the commercial loan applications by entrepreneurs are declined due to lack of collateral, poorly constructed business plans and failing to meet other prerequisites stipulated by financiers. Again, poor skills relating to the construction of sound business plans highlight the lack of good educational programmes specifically focusing on technical skills in drawing up business plans. Coupled to this is the apparent absence of financial management and financial administration in entrepreneurship education (Kotze and Smit, 2008).

Many SMEs are inclined to utilise bank loans and debt as working capital. Furthermore, salaries of business owners are often not factored into the operating costs of the business resulting in sporadic withdrawals on demand. All of this point to the fact that the drafting of sound financial budgets can strongly impact on spending patterns and internal regulation of finances (Kidwell and Turisi, 2004). Kidwell and Turisi's study suggests that entrepreneurs with strong financial management knowledge could be more adept at regulating finances more effectively as well as maintaining financial records.

Commercial loans carry high interest rates and increase the burden on the firm in terms of its commitments, particularly if the business does not implement financial planning as a tool to monitor income and expenses in the business over time.

Previous research has indicated that although entrepreneurs generally face many challenges, "black" entrepreneurs face major constraints in accessing finance, especially as a result of the history of South Africa that deprived "black" people of accessing finance to start businesses (GEM, 2002). Due to the highly conservative nature of the banking institutions, it is imperative

that commercial loan applications are accompanied by sound business plans explaining and defining the business concept, marketing, operational as well as financial plans and strategies. The financial plan within the business plan needs to demonstrate realistic cash flow projections for at least three years as well as break-even points. The primary inputs to formulating such a plan rests on conducting financial management practices in the business.

It is pointed out that the development and contribution of SMEs cannot be sustainable without the creation of new SMEs (Fatoki and Akinwumi, 2010). A recent study in Swaziland indicated that start-up building contractors do not have the benefit of favourable credit terms with suppliers, often resulting in cash flow problems and not being able to pay for materials on time (Mvubu, 2009).

Furthermore, the study points out that, due to the high number of contractors in lower value tenders, the failure rate of start-up contractors is high as a result of competition. This resulted in more start-up contractors moving into higher value tenders, where aspects such as managing cash flow and financial management become more prominent to ensure greater success (Mvubu, 2009). Lack of access to finance during the pre-construction phases also contributed to start-up contractors' cash flow problems. The argument is compelling (and equally relevant to South Africa) that start-up contractors in the building industry and related SMEs need to have sufficient financial management skills, at least for the purpose of managing cash flow better.

Agencies such as RED DOOR are intended to assist entrepreneurs with financial support, particularly if they are regarded as 'un-bankable' by the banking sector. As this form of assistance to entrepreneurs is only afforded once by RED DOOR due to budgetary constraints, it is imperative that these entrepreneurs implement sound financial management practices such as maintaining cash books, inventory record-keeping, budgeting, financial planning and cash flow projections.

The GEM (2003) study focused on the extent that financial management practices influenced business performance. The importance of this study is that it highlights the need for more research into financial administration and financial management of SMEs, particularly start-up SMEs. The aim of this study was to examine the impact of financial management and financial

administration of start-up SMEs. The sample in this study consisted of 224 owner-managers of start-up SMEs. The study focused on the firm and examined the extent to which SMEs were conducting financial administration and documentation, including debtor and creditor management and operational performance management. The study also examined the extent to which the businesses utilised this information for the purpose of cash flow management. This procedure included debtor and creditor management and financial forecasting.

Mvubu's (2009) study, which also highlights the urgent need to develop financial management skills in the building industry in order to create a sustainable industry, entailed a quantitative approach and included 87 start-up SMEs in the building industry. The purpose of their study was to examine the impact of access to finance, shortage of financial management skills and adequacy of government support for the development of start-up businesses.

Another study pointed out that not only insufficient capital contributed toward business failure but also lack of planning (Mabaso, 2008). This study specifically looked at businesses started by retrenched Telkom employees in Johannesburg. The study also mentioned the contributions of the lack of financial management skills and basic record-keeping procedures, as well as poor money management, to business failure. The study suggests that SMEs are not merely constrained by financial factors such as access to finance, but also by non-financial factors such as basic financial management skills.

Mabaso (2008) did not exclusively use financial management as a construct, however. The study was exploratory and descriptive. The study measured how long it took individuals to start businesses, how long the businesses lasted and the major reasons for business failure.

This study draws on the cash flow-centred model of firm performance (GEM, 2003) to construct and to formulate financial management practices. Basic financial management practices consisted of three items, namely, the accounting system, cash book and record of inventory, and were used to measure the extent to which start-up entrepreneurs were implementing at least the basic financial management practices in their businesses. The extent to which the basic measures of financial management practices were maintained and practiced by start-up entrepreneurs was rated by an external rater.

An in-depth interview allowed for probing into whether the entrepreneurs were keeping regular records of inventory in the business. It is widely acknowledged that maintaining inventory records are essential for entrepreneurs to keep track of the quantities of inventory. It has been shown that entrepreneurs maintaining regular inventory records are better able to avoid tying up cash in superfluous stock (GEM, 2003). This item therefore measured whether the entrepreneur maintained inventory control and how the presence or absence of inventory control affected the business.

The second item referred to the maintenance of a cash book in the business. Cash books record financial transactions that take place into and out of the firm's account. The maintenance of a cash book is critical for planning purposes and specifically for bank reconciliation, debtor management and creditor management. These elements form the basis for effective cash management. This item therefore measured the extent to which the entrepreneur was maintaining a cash book for recording daily transactions in the business.

The third item was represented by the accounting management system and related to debtor and creditor management. A record of accounts receivable represents a record of monies owed to the business and also contains details of the customers and the amounts that were owed. A record of accounts payable refers to monies owed by the business and contains details of the suppliers and the amounts owed. This item measured the extent to which the entrepreneur was implementing active debtor or creditor management systems in the business and how the presence or absence thereof affected cash flow.

All three items were combined to form an overall measure of basic financial management and 5-point scales were used.

Table 3.15: Basic Financial Management Practices

Items, Cronbach's Alpha, Descriptive Statistics and Factor Analysis (Principal Components Analysis – Varimax Rotated) Results: Factor loadings and r-correlation coefficient

Items	Factor Loading	r – correlation coefficient				
Inventory records	.84	> .3				
Cash Book	.78	> .3				
Accounts system	.76	> .3				
Cronbach's Alpha Coefficient = .70						
Variable	Mean	Median	Std dev	Minimum	Maximum	Kaiser-Meyer-Olkin value
Basic Financial Management Practices	2.77	2.13	0.844	1	5	.67

The second sub-construct represented advanced financial management practices and relates to the extent to which the entrepreneur performed more advanced financial management practices, such as debtor and cash management, budgeting, cash flow projections and pricing strategy formulation. The second sub-construct consisted of four items and served as a measure of the extent to which start-up entrepreneurs were implementing advanced financial management in the business.

In Vubu and Twala's (2009) study, debtor and creditor management were viewed as an essential part of financial management and were used to measure the timing of cash flows. It is commonly acknowledged that start-up entrepreneurs do not have good relationships with their suppliers. In a functioning relationship, it is common that the supplier would provide more credit to established entrepreneurs compared to start-up entrepreneurs. Start-up entrepreneurs would therefore pay cash up front for materials while established entrepreneurs would get a 30 to 90-day payment term. Thus, with this construct, it was possible to measure the extent to which entrepreneurs were utilizing the information of the accounting system (debtor and creditor information) to negotiate favourable terms with suppliers and apply effective working capital management.

The second item under advanced financial management was budgeting. A budget is an estimate of future numbers based on existing information the entrepreneur has. With budgets in place the entrepreneur can estimate the profits, financial performance and cash flow of a business for a particular period of time. Further benefits of budgets are that they could assist with evaluating

operational efficiency, monitoring the financial health of the business, assessing managerial decisions, planning the business's financial future and creating a business that meets financial goals. This construct measured the extent to which the entrepreneur utilised the basic financial information to set up budgets.

One of the reasons commonly cited for SME failure is the issue of cash flow. Monitoring and consistent evaluation of historical cash flow as well as future cash flow are critical to the success of any start-up SME. In Mvubu's (2009) study it was emphasized that very few start-up SMEs implement such practices and frequently end up not being able to pay for labour and materials on time. This construct measured the extent to which the entrepreneur was performing active cash flow management as well as variance analysis.

All three items were combined to form an overall measure of advanced financial management practices and 5-point scales were used.

Table 3.16: Advanced Financial Management Practices

Items, Cronbach's Alpha, Descriptive Statistics and Factor Analysis (Principal Components Analysis – Varimax Rotated) Results: Factor loadings and r-correlation coefficient

Items	Factor Loading	r – correlation coefficient				
Budgeting	.94	> .3				
Pricing	.91	> .3				
Cash flow projections	.88	> .3				
Cash management	.81	> .3				
Cronbach's Alpha Coefficient = .90						
Variable	Mean	Median	Std dev	Minimum	Maximum	Kaiser-Meyer-Olkin value
Advanced Financial Management Practices	2.41	2.23	0.923	1	5	.76

Thirdly, basic financial management and advanced financial management were combined to form an overall measure of financial management practices.

Table 3.17: Financial Management Practices

Items, Cronbach's Alpha, Descriptive Statistics and Factor Analysis (Principal Components Analysis – Varimax Rotated) Results: Factor loadings and r-correlation coefficient

Items	Factor Loading	r – correlation coefficient				
Basic Financial Management Practices	.83	> .3				
Advanced Financial Management Practices	.95	> .3				
Cronbach's Alpha Coefficient = .86						
Variable	Mean	Median	Std dev	Minimum	Maximum	Kaiser-Meyer-Olkin value
Financial Management Practices	2.28	2.11	1.022	1	5	.62

3.9.4 ENVIRONMENT

Previous research indicates that factors influencing entrepreneurs, particularly in the start-up phase, may be divided into two areas: the first relates to the entrepreneur's own personal factors and conditions, while the second category relates to aspects such as family, friends and the external environment. The environment in this study consisted of the economic environment, family environment, education environment and social environment. Overall Cronbach's Alpha was 0.85 for the total variable (Chen and Ming-Chuan, 2010).

Dahl and Sorenson (2007) indicate that the location should be taken into account as it may impact on the market potential and growth opportunities of start-up SMEs. Easier access to suppliers and buyers allows start-up SMEs to more easily identify and exploit growth opportunities in the market. Similarly, the location of the firm has implications for access to resources such as labour, equipment and technology. It is pointed out that firms operating in metropolitan areas have a greater chance of success than those in rural areas (Fatoki and Akinwumi, 2010).

Some studies have drawn on the work of Zahra, Nielsen and Bogner (1999), which emphasizes environmental characteristics, since these perceptions impact on new technology and

entrepreneurial choices (Urban, 2008). Environmental theory and its impact on high technology firms and EO is well documented (Allen and Stearns, 2004; Pownall and Lawson, 2005). It is also pointed out that the entrepreneur's perception of the external environment is expected to moderate the relationship between a firm's strategy and its financial performance (Zahra *et al.*, 1999). It can be seen that the environment presents an important variable in entrepreneurship research.

The external environment is frequently characterized in the literature in relation to dynamism, hostility and heterogeneity. Urban's (2008) study relies on two environmental dimensions, namely dynamism and hostility, which is consistent with earlier research and theory building in the field of entrepreneurship. Dynamism relates to the unpredictability of change in the environment. These changes can be made through competitors, changing customer needs and shifts in technology. These changes create opportunities and threats in the environment and compel the entrepreneur to act upon them. Hostility indicates an unfavourable business climate, such as hostile competition, strict regulations and unfavourable supply conditions (Zahra *et al.*, 1999).

In Urban's (2008) study, environmental dynamism (five items) and hostility (six items) were measured using a 7-point scale, in which 1 equals 'strongly agree' and 7 equals 'strongly disagree' with the statement. Respondents were asked to choose numbers 2 through 6 depending on their best estimate of an intermediate position. Furthermore, respondents were asked to indicate the extent to which they agreed or disagreed with each statement as they applied to their business's principal industry (i.e. the industry that accounted for the largest percentage of their business's sales).

The entrepreneurship literature suggests that the identification of opportunities depends on individual factors, particularly cognitive capacities, as well as on contextual factors, such as changes in the environment (Shane, 2003; Shane and Venkataraman, 2000). Three different empirical studies in different environmental contexts showed that psychological factors are significantly related to different entrepreneurial outcomes (Gielniek, 2010).

Every business is located within a unique environmental setting. The construct of the environment in this study draws on the work of Krauss (2003; 2005) and Urban (2008), where

the environment consists of dynamism and munificence. Dynamism describes the variability and the unpredictability of the environment. Munificence describes environment in terms of the ease of obtaining customers and finance. Environmental hostility consisted of six items while environmental stability consisted of four items. 5-point scales were used for both items where 1 denoted ‘strongly agree’ and 5 denoted ‘strongly disagree’.

Table 3.18: Environment

Items, Cronbach’s Alpha, Descriptive Statistics and Factor Analysis (Principal Components Analysis – Varimax Rotated) Results: Factor loadings and r-correlation coefficient

Items	Factor Loading	r – correlation coefficient				
Environmental dynamism	.92	> .3				
Environmental munificence	.94	> .3				
Cronbach’s Alpha Coefficient = .92						
Variable	Mean	Median	Std dev	Minimum	Maximum	Kaiser-Meyer-Olkin value
Environment	3.92	3.42	0.822	1	5	.86

3.9.5 HUMAN CAPITAL

For the past three decades entrepreneurship research has focused on the relationship between human capital (education, experience and skills) and success (Unger *et al.*, 2009). Researchers have established a positive relationship between human capital and success. However, this relationship is small and at times inconsistent. A recent meta-analysis involving 70 independent samples (N = 24,733) confirms an overall significant and small relationship between human capital and success. This relationship was higher for knowledge/ skills, which represent outcomes of human capital investments, compared to experience/ schooling, which are direct human capital investments. The relationships were also higher for human capital directly associated with entrepreneurial tasks, and for success measured as size compared to growth indicators such as profits and sales (Unger *et al.*, 2009).

Human capital in an entrepreneurial sense is acquired on an experiential basis and on an individual basis. Human capital consists of skills, knowledge and resources where knowledge and experience relate to general experience as well as specific experience, such as previous entrepreneurial experience. Therefore, human capital does not only comprise exclusively

formalized education and training, but also specific training that is not part of traditional formal educational structures. Research has shown that the relationship between human capital and success varies considerably ($r > .40$, Duchesneau and Gartner, 1990; $r > .20$, Frese *et al.*, 2007; $r < .06$, Davidsson and Honig, 2003; $r < .10$, Gimeno, Folta, Cooper and Woo, 2007). Unger *et al.*'s (2009) study shows that studies differ in the conceptualization of human capital and choices of success indicators.

Human capital continues to remain a complex construct to measure and previous studies have used proxy measures to obtain an estimated measure (Rauch and Frese, 2000). Human capital in this study draws on the work of Rauch and Frese (2000) and Krauss *et al.* (2005) and is made up of the number of years of formal education, work experience and specific entrepreneurship training and experience, to represent a reasonable proxy related to entrepreneurship.

3.9.6 ENTREPRENEURIAL SUCCESS

Table 3.19: Entrepreneurial Success

Items	Factor Loading	r – correlation coefficient				
Subjective success	.89	> .3				
Business growth success	.92	> .3				
Client growth success	.79	> .3				
External success	.77	> .3				
Cronbach's Alpha Coefficient = .91						
Variable	Mean	Median	Std dev	Minimum	Maximum	Kaiser-Meyer-Olkin value
Entrepreneurial Success	3.28	2.97	0.782	1	5	.84

The mainstream strategy and management literature usually refer to performance and rarely use 'success' as the title word (i.e. the performance/success title word ratio is much higher in leading management journals). Performance is often assessed through profitability indicators only (see for example, Goerzen and Beamish, 2005). In summary, growth is often used as the primary indicator of 'success' in entrepreneurship research. In mainstream management and

strategy research a strong focus on profitability is common. However, growth is commonly accepted as a positive indicator of performance.

Rauch (2000) used three measures of business success and measured success in two waves. Rauch measured each of the three success measures in wave one. In wave two, he measured the size of the business, growth of the business and the entrepreneur's satisfaction with work. The size of the business was measured according to the number of employees. Growth of the business was measured in terms of the increase in the number of employees over a three-year period. Rauch combined the size of the enterprise with growth of the business since these items were highly related. These measures were based on a 3-point scale (1=increase, 2=decrease, 3=same). An additional 7-point Likert scale was used to measure the level of satisfaction. The 3-point scale was derived from studies (conducted by Becherer and Maurer, 1999; Dess and Robinson, 1984; Sapienza, Smith and Gannon, 1989) that measured business success.

Rauch utilised an inter-industry design and controlled for type of industry. Type of industry was dummy coded in manufacturing, craft, trade and service. According to Rauch, there is evidence that newly founded businesses have a higher risk of failure than long-established ones. Resultantly, he controlled for the age of the business.

It has been found that the growth of the enterprise leads to an increase in the size of the enterprise and this was confirmed where the number of employees was positively related to growth in the number of employees ($r=.42$, $p<.01$), profit was related to growth in profit ($r=.31$, $p<.05$), and sales was related to sales growth ($r=.43$, $p<.01$).

Furthermore, Rauch found that the number of employees was closely related to the amount of sales ($r=.60$, $p<.01$). Growth of employees was significantly related to growth in sales ($r=.55$, $p<.01$). Thus, measures that focus on employees are closely related to measures that focus on sales.

In another study conducted by Krauss *et al.* (2005) success was measured in terms of size of the business and business growth. Business growth was measured in the average increase in client, profit and sales growth over the last three years. Business growth had a reliability measure of 0.74 (T1) and 0.86 (T2).

In this study, success consisted of four items and was based on a 5-point Likert scale. Success consisted of subjective success, growth success, client success and external success. These measures were combined to form an overall measure of success and had a reliability coefficient of 0.92.

Krauss's (2003) study used business performance that was related to business size (number of employees), business growth (growth in sales, customers and profits) and an external opinion (external success evaluation). Business growth explained 4% of the variance which was significant ($\Delta r^2 = .04$, $p < .05$, $p < .01$). Business size explained 2% of the variance which was significant ($\Delta r^2 = .02$, $p < .05$, $p < .01$). External success explained 27% of the variance which was significant ($\Delta r^2 = .27$, $p < .05$, $p < .01$).

Gielniek's (2010) study used venture growth and was related to revenues and profits generated by the business. The entrepreneurs were interviewed to determine revenue and profit figures over a two-year period after which a percentage change was calculated (Cronbach's Alpha = .75). The scale of venture growth relied on the subjective statements of the entrepreneurs' estimates rather than accountancy-based measures. The reason provided for this is that, in South Africa, entrepreneurs do not maintain financial records and are reluctant to disclose any financial information.

In this study, success consisted of four items and was based on a 5-point Likert scale. Success consisted of subjective success, growth success, client success and external success. Subjective success consisted of four items and measured the entrepreneur's satisfaction as well as subjective interpretation of success. Growth success consisted of three items and measured changes in sales, employees and profits. Client success consisted of three items and included changes in the number of clients. External success consisted of three items and represented an objective measure of success. These measures were combined to form an overall measure of success and had a reliability coefficient of 0.91. 5-point scales were used in all measures of success.

3.10 PHASE 3 – STATISTICAL METHODS AND PROCEDURES

3.10.1 STATISTICAL METHODS EMPLOYED

The statistical methods used in this study are based on the relevant studies mentioned in the table below.

Table 3.20 denotes the sample sizes of various studies conducted where action strategies are used as psychological predictors of entrepreneurial success. The smallest sample size is fifty (N=50), that was examined in a study in The Netherlands by Van Gelderen *et al.* (2000), while the largest sample size is two hundred and eighty (N=280), involved in a study in Zimbabwe by Frese (2002).

Table 3.20: Comparative Response Sample Sizes and Analysis Used In Recent Relevant Studies

Country	Study	Number of responses	Analysis used
Zimbabwe and South Africa	Krauss <i>et al.</i> (2003)	N=122 small business founders from Zimbabwe	Descriptive Statistics, Correlation and Regression Analyses
Amsterdam, The Netherlands	Van Gelderen <i>et al.</i> (2000)	N= 50 small business founders from Amsterdam	Descriptive Statistics, Correlation and Regression Analyses
Zimbabwe	Frese <i>et al.</i> (2002)	N=280 small business founders from Harare and Bulawayo	Descriptive Statistics, Correlation and Regression Analyses
Cape Town, South Africa	Friedrich <i>et al.</i> (2001)	N=126 small business founders from Cape Town	Descriptive Statistics, Correlation and Regression Analyses
Cape Town, South Africa	Solomon (2004)	N=134 small business founders from Cape Town	Descriptive Statistics and Correlation Statistical Analyses
Windhoek, Namibia	Brantjes <i>et al.</i> (2003)	N=87 small business founders in Windhoek	Descriptive Statistics, Correlation and Regression Analyses
Hanoi, Vietnam	Hiemstra <i>et al.</i> (2006)	N=102 small business founders in Hanoi	Descriptive Statistics, Correlation and Regression Analyses

The primary statistical methods used by most studies focusing on action strategies are descriptive statistics, correlation and hierarchical regression analyses. SPSS (version 12) was used to construct the database and for descriptive, correlation and hierarchical regression

analyses. A codebook was created in SPSS to denote key information relating to coded variables.

3.10.2 DESCRIPTIVE STATISTICS

Means, ranges and standard deviation were used as measures of central tendency and measures of dispersion. Measures of central tendency provide information about the most typical or average values of a variable. The mean is defined as the sum of a series of observations divided by the number of observations in the series. It is commonly used to describe the central tendency of variables.

Measures of dispersion provide information about the distribution of the values of a variable. They indicate how widely values are dispersed around their measures of central tendency. The standard deviation is a measure of dispersion that is calculated based on the values of the data. It indicates how widely the data are dispersed around the mean. The standard deviation has the desirable property that, when the data are normally distributed, 68.3 % of the observations lie within +/- 1 standard deviation from the mean, 95.4% within +/- 2 standard deviations from the mean and 99.7 % within 3 standard deviations from the mean.

3.10.3 FACTOR ANALYSIS

Factor analysis attempts to identify underlying variables or factors that explain the pattern of correlations within a set of observed variables. Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance observed in a much larger number of manifest variables. Factor analysis can also be used to generate hypotheses regarding causal mechanisms or to screen variables for subsequent analysis (for example, to identify collinearity prior to performing a linear regression analysis).

The factor analysis procedure offers a high degree of flexibility:

- Seven methods of factor extraction are available.
- Five methods of rotation are available, including direct oblimin and promax for non-orthogonal rotations.

- Three methods of computing factor scores are available, and scores can be saved as variables for further analysis.

Factor analysis was used to investigate how well the sub-constructs of the main variables were represented and to assist with the conceptual construction of the constructs (see Chapter 4, Tables 4.1 to 4.18). Additionally, the factor scores were computed for each respondent and used in subsequent analyses. For example, the factor analyses and factor scores were used later in building a hierarchical regression model to predict entrepreneurial success.

The procedure of establishing construct validity involved a clear and explicit definition of the underlying characteristic of interest, specifying the necessary components that make up the construct and what factors distinguish it from other constructs. This procedure also entailed the conversion of conceptual definitions into operational definitions.

3.10.4 CORRELATIONS

Correlation is a bivariate measure of association (strength) of the relationship between two variables. It varies from 0 (random relationship) to 1 (perfect linear relationship) or -1 (perfect negative linear relationship). It is usually reported in terms of its square (r^2), interpreted as percentage of variance explained. For instance, if r^2 is .25, then the independent variable is said to explain 25% of the variance in the dependent variable (Hair *et al.*, 1998).

In this study, product-moment correlation (r) is a measure of association which varies from -1 to +1, with 0 indicating 'no relationship' (random pairing of values) and 1 indicating 'perfect relationship', taking the form "the more the x, the more the y, and vice versa." A value of -1 is a perfect negative relationship, taking the form "the more the x, the less the y, and vice versa" (Hair *et al.*, 1998).

3.10.5 MULTIPLE REGRESSION

Multiple regression is not limited to one specific type of technique, but to a number of techniques that are used to explore relationships between dependent and independent relationships. Multiple regression is used for more sophisticated exploration of the interrelationship among a set of variables. Multiple regression also provides information relating to the overall regression model and includes the contribution of each variable that

makes up the model. Multiple regression is used to control for the additional variables when examining the predictive ability of the model (Pallant, 2006).

In this study hierarchical regression is used to determine the predictive ability of the model. The independent variables are entered in blocks in a predetermined order, with the effect of each independent variable being assessed in relation to predicting the dependent variable after previous variables are controlled for. For example, in this study strategy process characteristics, financial management practices and entrepreneurial orientation were entered independently into respective blocks and the relative contribution of each block of variables was assessed.

3.10.6 ADJUSTED COEFFICIENT OF DETERMINATION (ADJUSTED r^2)

The modified measure of the coefficient of determination takes into account a number of independent variables that are included in the regression equation and the sample size. Although the addition of independent variables will cause the coefficient of determination to rise, the adjusted coefficient of determination may decline if added independent variables have little explanatory power or if the degrees of freedom are too small (Cohen and Cohen, 1983).

3.10.7 MODERATION EFFECTS

The situation of a dependent-independent relationship affected by a third variable is termed a moderator effect. The interaction or moderating effects occur when the third variable changes the direct effect of the relationship between the dependent and the independent variable. The moderator term is a compound variable that is a product of the predictor and the moderating variable and is entered into the regression equation. Regression analysis is used to test the model that the dependent variable is a linear function of the predicting variable, but the slope for the regression of the dependent variable on the predicting variable varies across levels of a moderator variable. If the effect of the moderating variable is significant and produces change of the independent variable on the dependent variable, then this is termed an interaction effect. The moderated relationship is defined with the following equation:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_1X_2 \text{ where}$$

b_0 = intercept

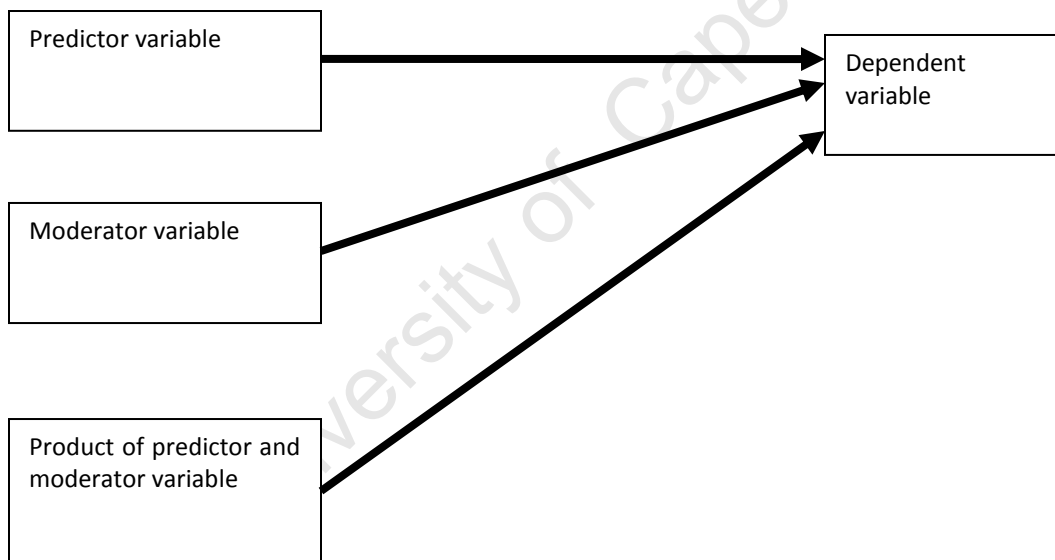
b_1X_1 = linear effect of X_1

b_2X_2 = linear effect of X_2

$b_3X_1X_2$ = moderator effect of X_2 on X_1

The coefficients b_1 and b_2 represent the effects of X_1 and X_2 when the other independent variable is zero. The b_3 coefficient represents the moderator effect and indicates the unit change in the effect of X_1 (predictor) as X_2 (moderator) changes (Hair *et al.*, 1998).

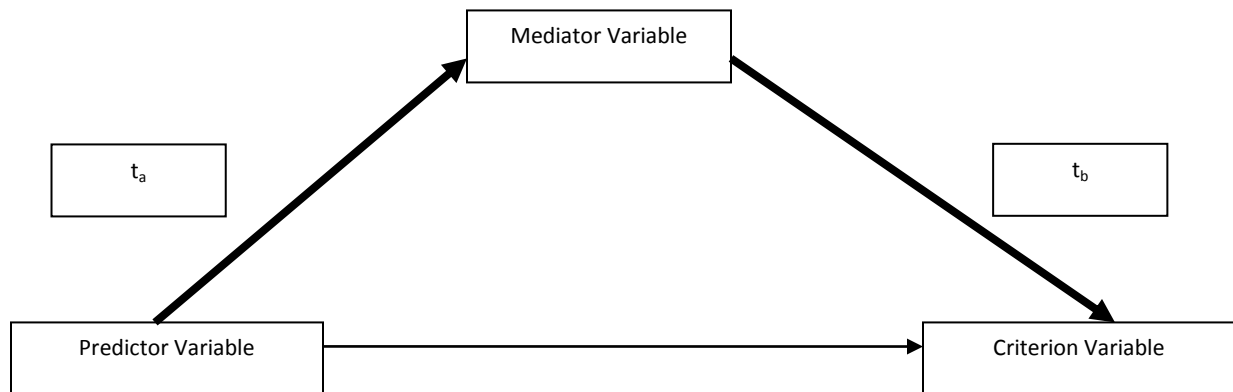
Figure 4: Hierarchical Moderation 3-step Model



This study utilised hierarchical regression and draws on the method of Aitken and West (1991) where a 3-step procedure was followed. The first step entailed hierarchically regressing the predictor variable against the dependent variable while holding control variables constant. The second step entailed regressing the moderating variable against the dependent variable while holding the control variables constant. The final step entailed regressing the product of the predictor- and the moderating variable against the dependent variable while holding the control variables constant.

3.10.8 MEDIATING EFFECTS

Figure 5: Mediation Model



The aim of the mediation model is to identify and explain the mechanism that underlies an observed relationship between an independent and a dependent variable via a third explanatory variable, known as a mediator variable. A mediational model hypothesizes that the independent variable causes the mediator variable, which in turn causes the dependent variable. The mediator variable, then, serves to clarify the nature of the relationship between the independent and dependent variables (MacKinnon, 2008).

Mediation was examined according to Baron and Kenny (1986) and results are reported in Chapter 4. According to Baron and Kenny (1986), the following three equations need to be tested in order to indicate sufficient evidence for mediation:

1. The first equation involves regressing the mediator variable against the predictor variable.
2. The second equation entails regressing the criterion variable on the predictor variable.
3. The third equation entails regressing the criterion variable concurrently onto the predictor variable and the mediator variable.
4. The fourth step involved the Sobel Test where the reported p-values are drawn from the unit normal distribution under the assumption of a two-tailed z-test of the hypothesis where the mediated effect equals zero in the population. The three principal versions of testing used for mediation include the Sobel Test, Aroian Test and Goodman Test. P-values less than 0.05 are considered to be significant and represent a mediating effect (Baron and Kenny, 1986). t_a and

tb are the inputs and together represent the strength of the mediated or indirect effect used for the Sobel, Aroian and Goodman tests.

Baron and Kenny (1986) further suggest that the following conditions must be met:

- Condition 1: The predictor variable must be significantly related to the mediator;
- Condition 2: The predictor variable must be significantly related to the criterion variable;
- Condition 3: The mediator variable must be significantly related to the criterion variable;
- Condition 4: The effect of the predictor variable must be less in equation 3 than in equation 2.

3.10.9 EVALUATION OF RELIABILITY

Reliability is the consistency of a measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In essence it relates to the repeatability of the measurement. A measure is considered reliable if a person's score on the same test given twice is similar. Reliability is not measured, it is estimated (Pallant, 2006).

Reliability represents the degree of consistency between multiple measurements of a variable. A commonly used measure of reliability is internal consistency relating to the consistency among variables in a summated scale. The rationale relating to internal consistency resides in the fact that the indicators of the scale should be measuring the same construct (Hair *et al.*, 1998). It is also pointed out that sometimes Cronbach's Alpha coefficients can be low with short scales (less than 10 items) and inter-item correlation values are more appropriate (Pallant, 2006). It is suggested that inter-item correlation values of between .2 and .4 can be regarded as an optimal range of reliability (Briggs and Cheek, 1986).

There are several measures to assess internal consistency. The first is that there are several measures relating to a single item, including an item to total correlation, and should exceed .50. The second measure relates to the entire scale where Cronbach's Alpha is used and should exceed .60 (Hair *et al.*, 1998). Generally, the Cronbach's Alpha coefficients in this study were

consistently higher than .70 (see Chapter 4, Tables 4.9 – 4.18) and satisfied the criteria for reliability.

In addition, factor analysis was conducted in the pilot phase (see Chapter 4, Tables 4.1 – 4.8) as well as in the main study (see Chapter 4, Tables 4.9 – 4.18) which lends further support to internal consistence measures of reliability.

It is pointed out that most measurements in the behavioural sciences involve measurement error and judgments made by humans are especially plagued by this problem (Schrouf and Fleiss, 1979). Since measurement error can seriously affect statistical analysis and interpretation, it is important to assess the amount of such error by calculating a reliability index. For this reason intra-class coefficients were used as measures of reliability for strategy process characteristics and specific entrepreneurial strategies such as complete planning, critical point planning, opportunistic planning and reactive planning strategies.

3.10.10 EVALUATION OF VALIDITY

The process of evaluation represents the last assessment of a scale and addresses the following:

- conforms to conceptual definition;
- scale is uni-dimensional;
- meets the required levels of reliability.

Validity is the extent to which a scale accurately represents the concept of interest (Hair *et al.*, 1998). Validity is concerned with the truth. Validity represents an overall evaluative judgment of the level to which empirical evidence and the theoretical framework support the appropriateness of the conclusions that are drawn from a study (Pallant, 2006).

The different types of validity include content validity, criterion validity, predictive validity and concurrent validity. In order to examine content validity the researcher can use exploratory or confirmatory factor analysis to determine how accurately or thoroughly the scale measures all the essential elements of the relevant variable (Hair *et al.*, 1998). Tables 4.1 to 4.8 (Chapter 4) prove that the variables included in this study met the criteria related to content validity.

3.10.10.1 CRITERION VALIDITY

Criterion validity relates to the accuracy with which an instrument predicts a well-accepted and defined indicator of a concept. For example, if a concept measures what it is supposed to measure, then it can be useful to predict future, present and past outcomes of interest (Hair *et al.*, 1998). Pearson product-moment correlation was conducted to evaluate the criterion validity and constructs met all the relevant criteria associated with criterion validity (see Chapter 4). Hair *et al.* (1998) point out that if Pearson product-moment correlation is used to evaluate criterion validity, then the correlation is termed a validity coefficient.

3.10.10.2 RETROSPECTIVE AND PREDICTIVE VALIDITY

There are generally three types of criterion validity, namely, retrospective validity, concurrent validity and predictive or prospective validity (concurrent validity is discussed below). Retrospective validity may be used where the outcomes already occurred before the study was begun. Retrospective validity attempts to determine whether test scores correlate with a criterion measure that focuses on the past. Retrospective validity was not conducted in this study.

Predictive validity is used as one form of criterion validity in order to test the predictive ability of the measure over time (example, a longitudinal study). In this study, a small pilot study was done initially where the instrument was tested for clarity and for refinement. During the survey the respondents that were interviewed in the pilot were also included. Therefore, it was possible to test the same individuals at different times during the data collection phase. Predictive validity was assessed using bivariate statistical procedures such as Pearson Correlation.

3.10.10.3 CONCURRENT VALIDITY

Concurrent validity is used when the researcher has both the test score and criterion measure at the same time and examines how strongly the two correlate. The purpose of the pilot study was to test and examine the strength of predictor and criterion variables at the same time. In addition, independent raters of the criterion and predictor variables allowed for independent assessment and rating. Two fieldworkers conducted independent data collection as part of the training and capacity-building programme with RED DOOR. In addition, bivariate correlations were used to examine and to test for concurrent validity (see Chapter 4). Concurrent validity has the strongest validity when the predictor and criterion measures are collected independently (Hair *et al.*, 1998).

3.10.10.4 CONSTRUCT VALIDITY

Construct validity relates to the operational definition and actually assesses the underlying conceptual variable that the measure is supposed to represent (Hair *et al.*, 1998). Construct validity represents one of the most difficult challenges in the social sciences and is centred primarily on whether the instrument or construct measures what it is supposed to measure. In order to test for construct validity the researcher needs to formulate clear and explicit definitions of the key variables or constructs. The conceptual definitions have been extracted from the theoretical framework in the literature and sufficient demonstration of the conceptual definitions has been made in this regard.

3.10.10.5 CONVERGENT VALIDITY

Construct validity also consists of convergent validity and examines the extent to which multiple measures of the construct show agreement. It is suggested that measures of the same construct should correlate highly if they are valid measures of the same concept (Hair *et al.*, 1998). Bivariate correlation was used to satisfy the criteria to measure convergent validity and these criteria were satisfied (see Chapter 4).

CHAPTER 4: RESULTS

This chapter firstly presents descriptive statistics describing the entrepreneurs (n = 192) in the sample. Secondly, it presents the description of the scale characteristics of the main variables used in this study. Thirdly, it presents the main results of correlation statistics of the primary variables. Fourthly, it presents the results of additive effects of strategy process characteristics and entrepreneurial orientation on financial management practices-entrepreneurial success. Fifthly, it presents the results of mediation effects of strategy process characteristics-success. Lastly, it presents the results of moderation effects of strategy process characteristics-success.

4.1 DESCRIPTIVE STATISTICS OF THE SAMPLE

Table 4.21: Interview Sample Descriptive Statistics

Variable	N	Percentage %	Number of Years
Gender:			
Male	152	79	
Female	40	21	
Line of business:			
Trade	49	25.5	
Services	101	52.7	
Construction	10	5.2	
Manufacturing	32	16.6	
Number of employees:			
Micro 1 – 9	169	88	
Small 10 – 50	23	12	
Age of business:			
< 5 years	61	32	
> 5 years	131	68	
Average age of business			7.74
Age of entrepreneur: Min = 25, Max = 71			41.12
Years of education			
< Grade 12	47	25	
Grade 12	73	38	
Certificate	60	31	
Diploma	6	3	
Degree/Postgraduate	6	3	
Average years of education Min = 8, Max = 20			12.4
Employed before starting a business			
Yes	178	93	
No	14	7	
Entrepreneurship training			

Variable	N	Percentage %	Number of Years
received			
Yes	21	11	
No	171	89	
Average years of entrepreneurship experience Min = 0, Max = 48			4.87
Management experience			
Yes	25	13	
No	167	87	
Average years of management experience Min = 0, Max = 11			3.59

Out of 192 firms, male entrepreneurs were dominant and represented 79% as opposed to 21% female entrepreneurs. This is in line with similar studies where female entrepreneurs tend to represent the smaller component in relation to male entrepreneurs (see Krauss, 2003; and Frese, Brantjes and Hoorn, 2002). Furthermore, GEM reports confirm that men are on average twice as likely to start a new business as their female counterparts.

The firms represented a cross-section of sectors from manufacturing (16.6%), services (52.7%), construction (5.2%) and retail (25.5%). The majority of the firms in this study were represented by the services sector followed by the retail sector.

The size of businesses was categorized into micro firms (less than 10 employees) and small firms (between 10 and 50 employees) where 88% of the sample constituted micro firms and 12% were small firms.

Most firms were older than 5 years (68%) while 32% of the firms were less than 5 years old. The mean age of the firms was 7.74 years.

The majority of the entrepreneurs in the sample had a Grade 12 qualification (38%), while 31% had a certificate and 25% did not have a Grade 12 qualification. The average number of years of education of the entrepreneurs in the sample was 12.4 years. Education has been identified as a critical factor in boosting the confidence of individuals to start a business (GEM, 2005). The report suggests that the lower the level of education of prospective entrepreneurs with lower skills, the less likely it is that they will start a business.

In addition, only 11% of the entrepreneurs in this sample received entrepreneurship training. This is indicative of the fact that very little information is available in South African schools relating to how entrepreneurship education can be accessed. GEM (2005) pointed out that teachers at schools lack adequate training to implement new learning areas such as Economic and Management Science and Entrepreneurship.

The majority of the entrepreneurs in the sample were employed before starting a business (93%), but only 13% of the entrepreneurs in the sample had management experience. Managerial skills represent specialized skills that entrepreneurs need, particularly relating to managing scarce resources such as capital, equipment and labour.

4.2 SCALE CHARACTERISTICS OF THE MAIN VARIABLES IN THE STUDY

Table 4.22 presents the main variables, their source (interview, questionnaire, or interviewer evaluation), the number of items, the number of valid interview responses, Cronbach's Alpha (if the scale contained more than two variables), inter-correlations (if only two variables made up a scale), inter-rater reliabilities, range, means, and standard deviations of the variables. As reliability measures, intra-class coefficients were used for factual (ICC [1,1]) and Likert (ICC [1,2]) items (Shrout and Fleiss, 1978).

Table 4.22: Scale Characteristics

Scale/index	# of items	α^a	r^b	M	SD	Range	N	Inter-rater ^c
<u>Controls</u>								
Age of business	1			1999	7.74	1964-2007	192	
Size of business	1			4.86	3.24	1-50	192	
Type of industry								
Trade	1						49	
Services	1						101	
Construction	1						10	
Manufacturing	1						32	
Complete planning	2	-	(.86)	2.95	1.38	1-5	192	.88
Critical point planning	2	-	(.85)	2.88	1.32	1-5	192	.81
Opportunistic planning	2	-	(.89)	2.90	1.38	1-5	192	.83
Reactive planning	2	-	(.91)	2.96	1.35	1-5	192	.87
Detail of planning	2	-	(.87)	1.65	1.26	1-5	192	.83
Goal specificity								
Goal difficulty	2	-	(.82)	1.46	1.20	1-5	192	.81
Goals	2	-	(.94)	2.16	1.40	1-5	192	.92
Time frame	2	-	(.93)	2.27	1.36	1-5	192	.84
Knowledge base	2	-	(.91)	1.70	1.10	1-5	192	.96
Level of proactiveness	2	-	(.86)	2.46	1.33	1-5	192	.96
Situational response level	2	-	(.89)	2.47	1.20	1-5	192	.84
	2	-	(.92)	3.58	1.22	1-5	192	.86
Innovation	9	.81		3.01	1.12	1-5	192	
Learning	9	.87		2.44	1.22	1-5	192	
Achievement	7	.95		3.56	0.78	1-5	192	
Personal initiative								
Autonomy	7	.93		3.47	0.89	1-5	192	
Risk	6	.91		4.34	1.13	1-5	192	
	8	.84		2.13	1.22	1-5	192	
Entrepreneurial Orientation	8	.84		3.22	1.13	1-5	192	
Inventory records	2		(.87)	3.01	1.27	1-5	192	.89
Cash book								
Accounts system	2		(.88)	2.73	1.31	1-5	192	.92
	2		(.93)	2.67	0.88	1-5	192	.94
Basic Financial Management Practices	3	.70		2.77	0.84	1-5	192	

Scale/index	# of items	α^a	r^b	M	SD	Range	N	Inter-rater ^c
Budgeting	2		(.92)	2.39	1.01	1-5	192	.88
Pricing	2		(.94)	2.45	0.98	1-5	192	.87
Cash flow projections	2		(.91)	2.49	0.95	1-5	192	.95
Cash management	2		(.89)	2.68	1.31	1-5	192	.94
Advanced Financial Management Practices	4	.90		2.41	0.92	1-5	192	
Financial Management Practices	2		(.91)	2.28	1.02	1-5	192	.89
Environmental hostility	6	.87		4.20	1.10	1-5	192	
Environmental stability	4	.84		3.80	0.98	1-5	192	
Environment	2		(.86)	3.92	0.82	1-5	192	
Subjective	4	.85		4.22	0.99	1-5	192	
Growth success	3	.92		3.36	1.22	1-5	192	
Client growth	3	.93		3.66	1.43	1-5	192	
External Success	3	.91		2.67	1.64	1-5	192	
Entrepreneurial success	4	.92		3.28	0.78	1-5	192	

Note – α^a = Cronbach's Alpha Correlation. r^b = correlation between 2 items that make up a scale (standardized data used). Inter-rater^c = Intra-class coefficients.

4.3 CORRELATION ANALYSIS

Table 4.23: Results of Pearson Correlation

	complete	critical	opportunist	reactive	financial management	EO	innovation	autonomy	personal initiative	learning	risk	achievement	human capital	client growth success	Business growth success	external success	subj_success	Entrepreneurial success
complete	1	.80**	-.24**	-.68**	.23**	.33**	.52**	.41**	.27**	.37**	.09	.52**	.32**	.31**	.25**	.33**	.36**	.36**
critical	.80**	1	-.12	-.70**	.22**	.34**	.49**	.40**	.29**	.35**	.04	.52**	.32**	.34**	.27**	.36**	.30**	.37**
Opportunistic	-.24**	-.12	1	-.02	-.26**	-.07	-.11	.05	.00	.09	.02	-.05	-.04	-.05	-.05	-.00	-.07	-.05
reactive	-.68**	-.70**	-.02	1	-.10	-.41**	-.45**	-.40**	-.35**	-.35**	-.12	-.53**	-.23**	-.36**	-.33**	-.36**	-.30**	-.40**
financial management	.23**	.22**	-.26**	-.10	1	.04	.36**	.11	.02	.09	-.00	.26**	.22**	.16*	.09	.03	.13	.12
EO	.33**	.34**	-.07	-.41**	.04	1	.50**	.46**	.54**	.39**	.06	.41**	.03	.61**	.77**	.74**	.74**	.84**
innovation	.52**	.49**	-.11	-.45**	.36**	.50**	1	.43**	.45**	.42**	-.00	.49**	.16*	.69**	.45**	.52**	.53**	.64**
autonomy	.41**	.40**	.05	-.40**	.11	.46**	.43**	1	.48**	.49**	.21**	.45**	.17*	.49**	.38**	.45**	.50**	.53**
personal initiative	.27**	.29**	.00	-.35**	.02	.54**	.45**	.48**	1	.50**	.05	.26**	.07	.57**	.42**	.51**	.57**	.60**
learning	.37**	.35**	.09	-.35**	.09	.39**	.42**	.49**	.50**	1	.17*	.35**	.17*	.48**	.32**	.36**	.39**	.45**
risk	.09	.04	.02	-.12	-.00	.06	-.00	.21**	.05	.17*	1	.25**	.00	.02	.07	.06	.05	.06
Achievement	.52**	.52**	-.05	-.53**	.26**	.41**	.49**	.45**	.26**	.35**	.25**	1	.26**	.40**	.37**	.48**	.38**	.18**
human capital	.32**	.32**	-.04	-.23**	.22**	.03	.16*	.17*	.07	.17*	.00	.26**	1	.02	-.07	-.02	.08	.00
client growth success	.31**	.34**	-.05	-.36**	.16*	.61**	.69**	.49**	.57**	.48**	.02	.40**	.02	1	.56**	.63**	.62**	.83**
Business growth success	.25**	.27**	-.05	-.33**	.09	.77**	.45**	.38**	.42**	.32**	.07	.37**	-.07	.56**	1	.62**	.65**	.84**
External success	.33**	.36**	-.00	-.36**	.03	.74**	.52**	.45**	.51**	.36**	.06	.48**	-.02	.63**	.62**	1	.69**	.86**
subj_success	.36**	.30**	-.07	-.30**	.13	.74**	.53**	.50**	.57**	.39**	.05	.38**	.08	.62**	.65**	.69**	1	.86**
Entrepreneurial success	.36**	.37**	-.05	-.40**	.12	.84**	.64**	.53**	.60**	.45**	.06	.48**	.00	.83**	.84**	.86**	.86**	1

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

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

Table 4.23 above provides the results of Pearson Correlation of the main variables in the study. Pearson Correlation was also used to examine hypotheses 1 to 4. This technique was used to determine the initial strength and direction of the relationships between the main variables.

Overall, human capital was not correlated to the success variables. However, there is a small significant and positive correlation with financial management practices ($r = .22, p < .01$). Therefore, hypothesis 1 is not accepted.

Overall, financial management was not correlated to any of the success variables. However, there was a small, positive significant relationship between financial management practices and client growth success ($r = .16, p < .05$). Therefore, hypothesis 2 is not accepted.

Overall, entrepreneurial orientation and its components were positively and significantly correlated to all the success variables with the exception of risk orientation. Risk orientation was correlated to any of the success variables. Therefore, hypothesis 3 is accepted.

Table 4.23 indicates that complete planning and critical point planning strategies (high-level planning) were positively and significantly correlated to all the success variables. Reactive planning strategy (low-level planning) was negatively correlated and significantly correlated to the success variables while opportunistic planning strategy (low-level planning) was not correlated to the success variables. Consequently, hypothesis 4 is partially accepted.

4.4 CHECKING FOR MULTI-COLLINEARITY

Multi-collinearity represents a condition where there is extensive overlap between the independent variables and presents problems in regression analysis relating to inflated standard errors of estimates of regression parameters (Agresti and Finlay, 1997).

The simplest means of identifying multi-collinearity is an examination of the correlation matrix for the independent variables. Coefficients reflecting high correlation of above .90 and above represent the first indication of multi-collinearity. It is suggested that two more measures need to be assessed to rule out multi-collinearity. These measures are tolerance value and its inverse, variance tolerance factor (VIF). These measures indicate to what extent each independent variable is explained by the other independent variables (Hair *et al.*, 1998). These conditions were satisfied in this study where the tolerance values were well above 0.1 and the VIF was well below 10 which indicates the minimization of multi-collinearity.

Table 4.24: Collinearity Statistics

Factors	T	Collinearity Statistics	
		Tolerance	VIF
Complete planning	-2.468	.238	4.204
Critical point planning	2.674	.288	3.473
Opportunistic planning	-.922	.814	1.229
Reactive planning	.570	.395	2.531
Innovation	.680	.469	2.133
Risk	-.112	.836	1.197
Learning	-.598	.481	2.079
Personal initiative	1.735	.553	1.808
Autonomy	.363	.627	1.594
Achievement	1.780	.420	2.381
Financial management practices	-.605	.773	1.293

4.5 HIERARCHICAL REGRESSION

Hierarchical regression represents a form of general linear modelling and is a multivariate statistical technique that is used to test the hypotheses. The independent variables, in addition to their collective prediction of entrepreneurial success, may also be considered for their individual contribution to the variate and its predictions (Hair *et al.*, 1998).

Hierarchical regression is a more advanced statistical technique and is firstly used to examine the additive impact of entrepreneurial orientation and financial management practices on various dimensions of entrepreneurial success. Secondly, hierarchical regression is used to examine the additive effects of strategy process characteristics and financial management practices on various dimensions of entrepreneurial success.

Entrepreneurial orientation and its components were examined for additive effects on dimensions of success when added to financial management practices.

These results are described and presented below.

Table 4.25: Results of Hierarchical Regression Analyses of EO and its Components of Subjective Success (Innovation, Autonomy, Personal Initiative, Achievement, Risk-Taking And Learning)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Main effects								
Financial management	.13†	-.07	-.05	-.05	.00	.00	.00	.05
Innovation		.56**	.32**	.28**	.19*	.19*	.18*	.08
Achievement			.40**	.30**	.25**	.25**	.26**	.12†
Autonomy				.22**	.13†	.13†	.14†	.09
Personal initiative					.32**	.32**	.32**	.17*
Learning						-.01	-.01	-.02
Risk							-.04	-.02
EO								.51**
r ²	.01†	.28**	.38*	.41*	.58*	.17	.17	.62**
Δr ²	.02†	.27**	.10*	.03*	.17*	.00	.00	.45**
F	3.36†	10.10**	13.72*	14.81*	17.34*	6.98	6.97	22.39**
P	0.17†	0.00**	0.01*	0.04*	0.01*	1	0.92	0.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. **p < .01, *p < .05, † p < .10

Specifically, hierarchical regression in table 4.25 was used to determine the additive effect of entrepreneurial orientation and its components on financial management practices with subjective success. In all the steps financial management practices were controlled. The individual components of EO were entered independently and this is represented by models one to eight. The individual components of EO are entered from steps two to eight and the proportion of variance (increase in r²), p-values, f-values and change in r (Δr) are presented.

In the model one financial management practices was entered and a small but statistically significant relationship was found. In model two innovation was entered and a statistically significant relationship was found (model 2: r² = .28, p < .01). In model three need for achievement was entered and a statistically significant relationship was found (model 3: r² = .38, p < .05). In model four autonomy was entered and a statistically significant relationship was found (model 4: r² = .41, p < .05). In model five personal initiative was entered and a statistically significant relationship was found (model 5: r² = .58, p < .05). With regards to

models six and seven learning - and risk orientation was entered respectively, however, no significance was found. In model eight entrepreneurial orientation was entered and a statistically significant relationship was found (model 6: $r^2 = .62$, $p < .01$).

Table 4.26: Results of Hierarchical Regression Analyses of EO and its Components of External Success (Innovation, Autonomy, Personal Initiative, Achievement, Risk-Taking and Learning)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Main effects								
Financial management	.04	-.18*	-.14*	-.14*	-.11*	-.11*	-.11*	-.07
Innovation		.59**	.22**	.21**	.15*	.15*	.14*	.05
Achievement			.61**	.58**	.55**	.56**	.56**	.43**
Autonomy				.05	-.01	.00	.00	-.04
Personal initiative					.21**	.22**	.21**	.08
Learning						-.03	-.03	-.03
Risk							-.04	-.03
EO								.47**
r^2	.00	.29**	.53**	.53	.56*	.55	.55	.68**
Δr^2	.00	.30**	.24**	.00	.03*	.00	.00	.12**
F	.28	15.47**	19.13**	19.14	20.22*	19.87	19.86	24.56**
P	.98	.00**	.00**	.78	.03*	.98	.84	.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. ** $p < .01$, * $p < .05$, † $p < .10$

Hierarchical regression in table 4.26 was used to determine the additive effect of entrepreneurial orientation and its components on financial management practices was examined with external success. In all the steps financial management practices were controlled. The individual components of EO were entered independently and this is represented by models one to eight. The individual components of EO are entered from steps two to eight and the proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In model one financial management practices was entered and no significance was found. In model two innovation was entered statistical significance was found (model 2: $r^2 = .29$, $p < .01$). In model three need for achievement was entered a statistically significant relationship

was found (model 3: $r^2 = .53$, $p < .01$). In model four autonomy was entered no significance was found. In model five personal initiative was entered and statistical significance was found (model 5: $r^2 = .56$, $p < .05$). When learning- and risk orientation was entered in models six and seven, no significance was found. In model eight entrepreneurial orientation was entered and statistical significance was found (model 8: $r^2 = .68$, $p < .01$).

Table 4.27: Results of Hierarchical Regression Analyses of EO and its Components of Business Growth Success (Innovation, Autonomy, Personal Initiative, Achievement, Risk-Taking and Learning)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Main effects								
Financial management	.09	-.09	-.07	-.07	-.04	-.04	-.04	.03
Innovation		.49**	.29**	.27**	.22*	.22*	.22*	.07
Achievement			.32**	.26**	.24*	.24*	.24*	.03
Autonomy				.12*	.07*	.06	.06	-.01
Personal initiative					.19*	.19*	.19*	-.02
Learning						.01	.01	.00
Risk							.01	.03
EO								.74**
r^2	.00	.21*	.27*	.28*	.30*	.29	.29	.60**
Δr^2	.01	.21*	.07*	.01*	.02*	.00	.00	.30**
F	1.67	11.58*	9.75*	14.12*	13.82*	3.47	3.49	21.67**
P	.38	.02*	.03*	.02*	.02*	0.29	0.31	.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. ** $p < .01$, * $p < .05$, † $p < .10$

Hierarchical regression in table 4.27 was used to determine the additive effect of entrepreneurial orientation and its components on financial management practices was examined with business growth success. In all the steps financial management practices were controlled. The individual components of EO were entered independently and this is represented by models one to eight. The individual components of EO are entered from steps two to eight and the proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In model one no significance was found when financial management practices was entered. In model two innovation was entered and statistical significance was found (model 2: $r^2 = .21$, $p < .05$). In model three need for achievement was entered and a statistically significant relationship was found (model 3: $r^2 = .27$, $p < .05$). In model four autonomy was entered and statistical significance was found (model 4: $r^2 = .28$, $p < .05$). In model five personal initiative was entered and statistical significance was found (model 5: $r^2 = .30$, $p < .05$). No significance was found when learning- and risk orientation was entered in models six and seven. In model eight entrepreneurial orientation was entered and statistical significance was found (model 6: $r^2 = .60$, $p < .01$).

Table 4.28: Results of Hierarchical Regression Analyses of EO and its Components of Client Growth Success (Innovation, Autonomy, Personal Initiative, Achievement, Risk-Taking and Learning)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Main effects								
Financial management	.16*	.16*	.05*	.06*	.05*	.04*	.04*	.03*
Risk-taking		.03	.03	-.02	-.05	-.04	-.05	-.04
Innovation			.74**	.54**	.51**	.45**	.43**	.26**
Achievement				.31**	.25*	.21**	.21**	.10
Autonomy					.15*	.08	.06	.03
Personal Initiative						.24**	.21**	.04
Learning							.08	.10†
Entrepreneurial Orientation								.47**
r^2	.03†	.03	.49**	.56**	.57†	.61*	.61	.69**
Δr^2	.03†	.00	.47**	.06**	.02†	.04*	.00	.07**
F	1.08†	1.07	17.70**	20.22**	9.59†	15.03*	2.03	24.92**
P	.10†	1	.00**	.00**	.07†	.02*	.32	.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. ** $p < .01$, * $p < .05$, † $p < .10$

Hierarchical regression in table 4.28 was used to determine the additive effect of entrepreneurial orientation and its components on financial management practices was examined with client growth success. In all the steps financial management practices were controlled. The individual components of EO were entered independently and this is represented by models one to eight. The individual components of EO are entered from steps

two to eight and the proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In model one financial management practices was entered and small but statistical significance was found (model 1: $r^2 = .03$, $p < .10$). No significance was found for risk orientation in model two. In model three innovation was entered and statistical significance was found (model 3: $r^2 = .49$, $p < .01$). In model four need for achievement was entered and statistical significance was found (model 4: $r^2 = .56$, $p < .01$). In model five autonomy was entered and statistical significance was found (model 5: $r^2 = .57$, $p < .10$). In model six personal initiative was entered and statistical significance was found (model 6: $r^2 = .61$, $p < .05$). No significance was found for learning orientation in model seven. In model eight entrepreneurial orientation was entered and statistical significance was found (model 8: $r^2 = .69$, $p < .01$).

Table 4.29: Results of Hierarchical Regression Analyses of EO and its Components of Entrepreneurial Success (Innovation, Autonomy, Personal Initiative, Achievement, Risk-Taking and Learning)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Main effects								
Financial management	.23**	.21**	.00	-.02	.00	.00	-.03	-.02
Risk-taking		.14	.15*	.06	.07	.03	-.02	-.02
Innovation			.61**	.50**	.44**	.41**	.30**	.27**
Learning				.33**	.20**	.14†	.09	-.01
Personal initiative					.25**	.25**	.22**	.18**
Autonomy						.18**	.09	.05
Achievement							.37**	.26**
Entrepreneurial Orientation								.26**
r^2	.05*	.07	.38**	.47**	.51*	.53*	.60**	.62*
Δr^2	.05*	.02	.32**	.09**	.04*	.02*	.08**	.01*
F	1.81*	2.53	13.72**	16.97**	18.42*	19.14*	21.67**	22.39*
P	0.04*	0.14	0.00**	0.00**	0.02*	0.05*	0.00**	0.05*

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. ** $p < .01$, * $p < .05$, † $p < .10$

Hierarchical regression in table 4.29 was used to determine the additive effect of entrepreneurial orientation and its components on financial management practices was examined with entrepreneurial success. In all the steps financial management practices were controlled. The individual components of EO were entered independently and this is represented by models one to eight. The individual components of EO are entered from steps two to eight and the proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In model one financial management practices was entered and statistical significance was found (model 1: $r^2 = .05$, $p < .05$). In model two no significance was found when risk orientation was entered. In model three innovation was entered and statistical significance was found (model 3: $r^2 = .38$, $p < .01$). In model four learning orientation was entered and statistical significance was found (model 4: $r^2 = .47$, $p < .01$). In model five personal initiative was entered and statistical significance was found (model 5: $r^2 = .51$, $p < .05$). In model six autonomy was entered and statistical significance was found and statistical significance was found (model 6: $r^2 = .53$, $p < .05$). In model seven need for achievement was entered and statistical significance was found (model 7: $r^2 = .60$, $p < .01$). In model eight entrepreneurial orientation was entered and statistical significance was found (model 8: $r^2 = .62$, $p < .05$). Consequently, hypothesis 3a is accepted.

Tables 4.30 to 4.34 provide an indication of the additive effects of the action templates, complete planning, critical point planning, opportunistic planning and reactive planning strategies on the dimensions of success when added to the environment and financial management practices.

Table 4.30: Strategy Process Characteristics and Subjective Success

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Main effects						
Environment	.03	.04	.05	.06	.08	.08
Financial management		.14†	.12†	.09	.06	.05
Opportunistic Planning			-.05	-.07	.00	.01
Reactive Planning				-.31**	-.21**	-.14**
Critical Point Planning					.45**	.21**
Complete Planning						.48**
Strategy Process Characteristics						
r^2	.00	.01	.01	.09*	.28**	.45**
Δr^2	.00	.02	.00	.09*	.19**	.16**
F	.18	3.54	.43	3.27*	10.11**	16.25**
P	.99	.16	.92	.02*	.00**	.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. **p < .01, *p < .05, † p < .10

Hierarchical regression in table 4.30 was used to determine the additive effect of strategy process characteristics on financial management practices was examined with subjective success. In all the steps financial management practices were controlled. Strategy process characteristics was entered independently and this is represented by models one to six. The proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In models one to three the environment, financial management practices and opportunistic strategy were entered respectively and no significance was found. In model four reactive strategy was entered and statistical significance was found (model 4: $r^2 = .09$, $p < .05$). In model five critical point planning strategy was entered and statistical significance was found (model 5: $r^2 = .28$, $p < .01$). In model six complete planning strategy was entered and statistical significance was found (model 6: $r^2 = .45$, $p < .01$).

Table 4.31: Strategy Process Characteristics and Business Growth Success

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Main effects						
Environment	-.12	-.11	-.11	-.09	-.08	-.08
Financial management		.08	.08	.04	.01	.00
Opportunistic Planning			-.03	-.05	.02	.03
Reactive Planning				-.32**	-.23**	-.18**
Critical Point Planning					.46**	.28**
Complete Planning						.36**
Strategy Process Characteristics						
r^2	.01	.01	.01	.11**	.30**	.39**
Δr^2	.01	.01	.00	.10**	.19**	.09**
F	2.57	1.30	.13	3.97**	10.83**	14.08**
P	.24	.49	1	.00**	.00**	.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. **p < .01, *p < .05, † p < .10

Hierarchical regression in table 4.31 was used to determine the additive effect of strategy process characteristics on financial management practices was examined with business growth success. In all the steps financial management practices were controlled. Strategy process characteristics was entered independently and this is represented by models one to six. The proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In models one to three no significance was found for environment, financial management practices and opportunistic strategy. In model four reactive strategy was entered and statistical significance was found (model 4: $r^2 = .11$, $p < .01$). In model five critical point planning was entered and statistical significance was found (model 5: $r^2 = .30$, $p < .01$). In model six complete planning strategy was entered and statistical significance was found (model 6: $r^2 = .39$, $p < .01$).

Table 4.32: Strategy Process Characteristics and Client Growth Success

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Main effects						
Environment	-.10	-.08	-.08	-.06	-.05	-.05
Financial management		.15	.15	.11	.08	.08
Opportunistic Planning			-.01	-.03	.03	.04
Reactive Planning				-.35**	-.27**	-.21**
Critical Point Planning					.42**	.23**
Complete Planning						.37**
Strategy Process Characteristics						
r^2	.00	.02†	.02	.14	.30	.39
Δr^2	.01	.02	.00	.12**	.16**	.10**
F	1.78	4.53	.01	5.06	10.84	14.08
P	.36	.12	1	.00**	.00**	.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. **p < .01, *p < .05, † p < .10

Hierarchical regression in table 4.32 was used to determine the additive effect of strategy process characteristics on financial management practices was examined with client growth success. In all the steps financial management practices were controlled. Strategy process characteristics was entered independently and this is represented by models one to six. The proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In models one to three no significance was found for environment, financial management practices and opportunistic strategy. In model four reactive strategy was entered and statistical significance was found (model 4: $r^2 = .14$, $p < .01$). In model five critical point planning strategy was entered and statistical significance was found (model 5: $r^2 = .30$, $p < .01$). In model six complete planning strategy was entered and statistical significance was found (model 6: $r^2 = .39$, $p < .01$).

Table 4.33: Strategy Process Characteristics and External Success

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Main effects						
Environment	.04	.04	.04	.06	.07	.07
Financial management		.04	.04	.00	-.03	-.04
Opportunistic Planning			.01	-.02	.05	.07
Reactive Planning				-.37**	-.26**	-.20**
Critical Point Planning					.50**	.28**
Complete Planning						.43**
Strategy Process Characteristics						
r^2	.00	-.01	-.01	.12	.35	.48
Δr^2	.00	.00	.00	.13**	.23**	.13**
F	.23	.33	.01	4.33	12.64	17.34
P	.99	.97	1	.00**	.00**	.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. **p < .01, *p < .05, † p < .10

Hierarchical regression in table 4.33 was used to determine the additive effect of strategy process characteristics on financial management practices was examined with external success. In all the steps financial management practices were controlled. Strategy process characteristics was entered independently and this is represented by models one to six. The proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In models one to three no significance was found for environment, financial management practices and opportunistic planning strategy. In model four reactive planning strategy was entered and statistical significance was found (model 4: $r^2 = .12$, $p < .01$). In model five critical point strategy was entered and statistical significance was found (model 5: $r^2 = .35$, $p < .01$). In model six complete planning was entered and statistical significance was found (model 6: $r^2 = .48$, $p < .01$).

Table 4.34: Strategy Process Characteristics and Entrepreneurial Success

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Main effects						
Environment	-.05	-.05	-.04	-.01	.00	.00
Financial management		.12†	.12	.07	.04	.02
Opportunistic Planning			-.02	-.04	.03	.05
Reactive Planning				-.40**	-.29**	-.22**
Critical Point Planning					.53**	.30**
Complete Planning						.48**
Strategy Process Characteristics						
r^2	.00	.01†	.00	.15	.42	.60
Δr^2	.00	.01	.00	.16**	.27**	.16**
F	.04	2.78	.09	5.42	15.17	21.67
P	.92	.22	1	.00**	.00**	.00**

Note - Controls were only reported if it correlated with success in the study (n=192).

Standardised coefficients are reported. **p < .01, *p < .05, † p < .10

Hierarchical regression in table 4.34 was used to determine the additive effect of strategy process characteristics on financial management practices was examined with entrepreneurial success. In all the steps financial management practices were controlled. Strategy process characteristics was entered independently and this is represented by models one to six. The proportion of variance (increase in r^2), p-values, f-values and change in r (Δr) are presented.

In models one to three no significance was found for environment, financial management practices and opportunistic strategy. In model four reactive strategy was entered and statistical significance was found (model 4: $r^2 = .15$, $p < .01$). In model five critical point strategy was entered and statistical significance was found (model 5: $r^2 = .42$, $p < .01$). In model six complete planning was entered and statistical significance was found (model 6: $r^2 = .60$, $p < .01$). Therefore, hypothesis 4a is accepted.

4.6 MEDIATION

In terms of Baron and Kenny's mediation model the first two models must reflect statistical significance in line with establishing mediation. More specifically, the relationship between the predictor and the criterion variables must be statistically significant ($p < .05$). Model 3 presents an additional step for testing mediation and involves testing the relationship between the criterion and the predictor/mediator variables through the Sobel test. The following test results as illustrated in the figures and tables below are achieved utilising the terms of Baron and Kenny's mediation model. In figures 6 to 15 the test statistics, t_a and t_b are used as inputs for the Sobel test while β -values are used to denote the strength between respective variables (independent-, mediating- and dependent variables).

4.6.1 MEDIATING EFFECTS OF HUMAN CAPITAL

Figure 6: Mediating Effect of Human Capital of Financial Management Practices-Entrepreneurial Success

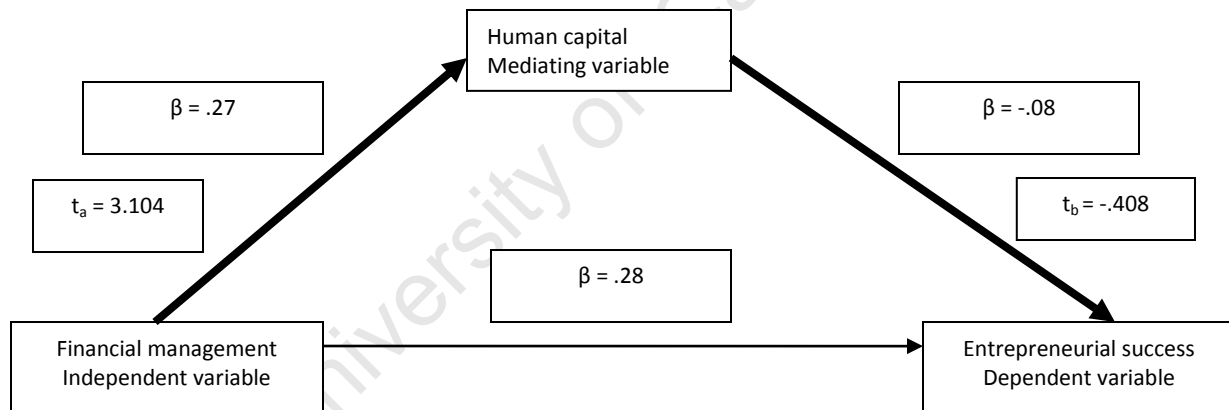


Table 4.35: Mediating Effects of Human Capital on the Relationship between Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	p-value
1	Human Capital	Financial Management Practices	.27*	3.104*	9.634*	< .05
2	Entrepreneurial Success	Financial Management Practices	.28*	1.730*	2.991*	< .05
3	Entrepreneurial Success	Financial Management Practices Human Capital	.13 -.03	1.773 -.408	1.572	

Table 4.36: Sobel Testing For Mediation

	Input	Test	Test statistic	p-value
t_a	3.104	Sobel test	0.405	0.686
t_b	-.408	Aroian test	0.385	0.700
		Goodman test	0.427	0.699

Note – p-values less than .05 denotes significance *

In step 1, the mediator, human capital was regressed on the predictor variable, financial management practices and the relationship is statistically significant ($\beta = .27$, $p < .05$). In step 2, the predictor, financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .28$, $p < .05$). In step 3, the predictor, financial management practices and the mediator, human capital was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are greater than .05 implying that no mediation effects were found. Therefore, hypothesis H2a was not supported.

Figure 7: Mediating effect of Human Capital on Basic Financial Management Practices-Entrepreneurial Success

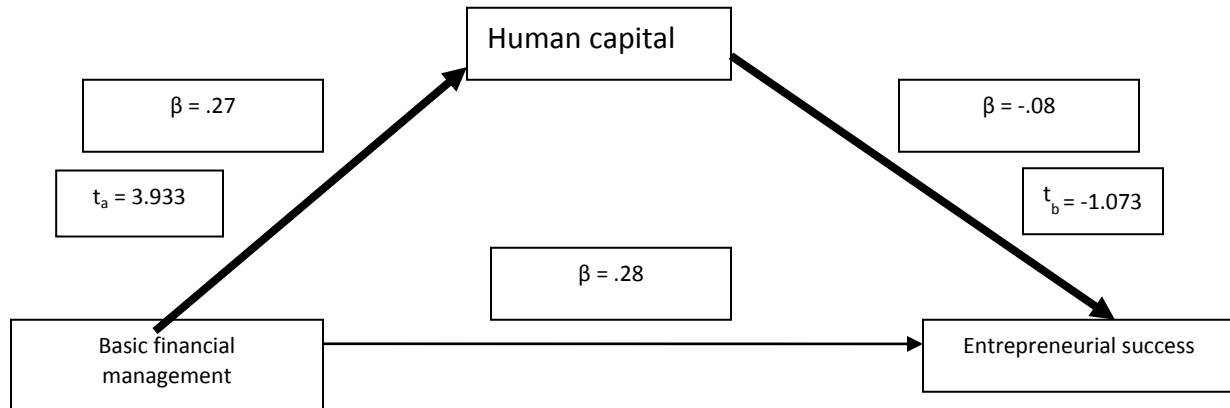


Table 4.37: Mediating Effects of Human Capital on the Relationship between Basic Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	p-value
1	Human Capital	Basic Financial Management Practices	.27*	3.933*	15.471*	< .05
2	Entrepreneurial Success	Basic Financial Management Practices	.26*	3.689*	13.608*	< .05
3	Entrepreneurial Success	Basic Financial Management Practices	.28	3.843	7.385	
		Human Capital	-.078*	-1.073*		< .05

Table 4.38: Sobel Testing For Mediation

	Input	Test	Test statistic	p-value
t_a	3.933	Sobel test	1.035	0.301 *
t_b	-1.073	Aroian test	1.005	0.315 *
		Goodman test	1.068	0.286 *

Note – p-values < .05 denotes significance *

In step 1, the mediator, human capital was regressed on the predictor variable, basic financial management practices and the relationship is statistically significant ($\beta = .27, p < .05$). In step 2, the predictor, basic financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .26, p < .05$). In step 3, the predictor, basic financial management practices and the mediator, human capital was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are less than .05 implying that mediation effects were found. Therefore, hypothesis H2b is supported.

Figure 8: Mediating Effects of Human Capital on Advanced Financial Management Practices-Entrepreneurial Success

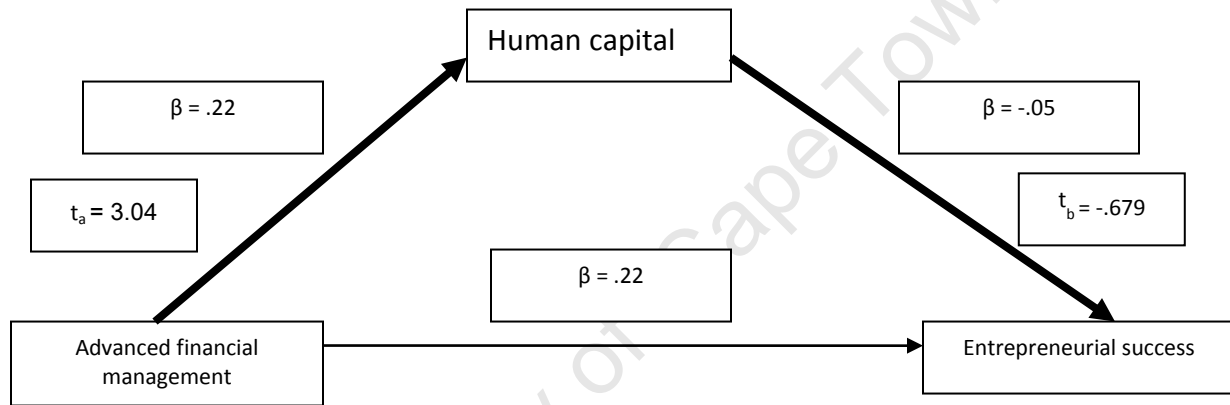


Table 4.39: Mediating Effects of Human Capital on the Relationship between Advanced Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	p-value
1	Human Capital	Advanced Financial Management Practices	.22*	3.04*	9.231*	< .05
2	Entrepreneurial Success	Advanced Financial Management Practices	.21*	2.996*	8.977*	< .05
3	Entrepreneurial Success	Advanced Financial Management Practices Human Capital	.22 -.049	3.068 -.679	4.706	

Table 4.40: Sobel Test For Mediation

	Input	Test	Test statistic	p-value
t_a	3.04	Sobel test	0.663	0.508
t_b	-.679	Aroian test	0.631	0.528
		Goodman test	0.700	0.484

Note – p-values less than .05 denotes significance *

In step 1, the mediator, human capital was regressed on the predictor variable, advanced financial management practices and the relationship is statistically significant ($\beta = .22, p < .05$). In step 2, the predictor, advanced financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .21, p < .05$). In step 3, the predictor, advanced financial management practices and the mediator, human capital was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are not less than .05 implying that no mediation effects were found. Therefore, hypothesis H2c was not supported.

4.6.2 MEDIATING EFFECTS OF ENTREPRENEURIAL ORIENTATION ON FINANCIAL MANAGEMENT PRACTICES-ENTREPRENEURIAL SUCCESS

Figure 9: Mediating effects of Entrepreneurial Orientation on Basic Financial Management Practices-Entrepreneurial Success

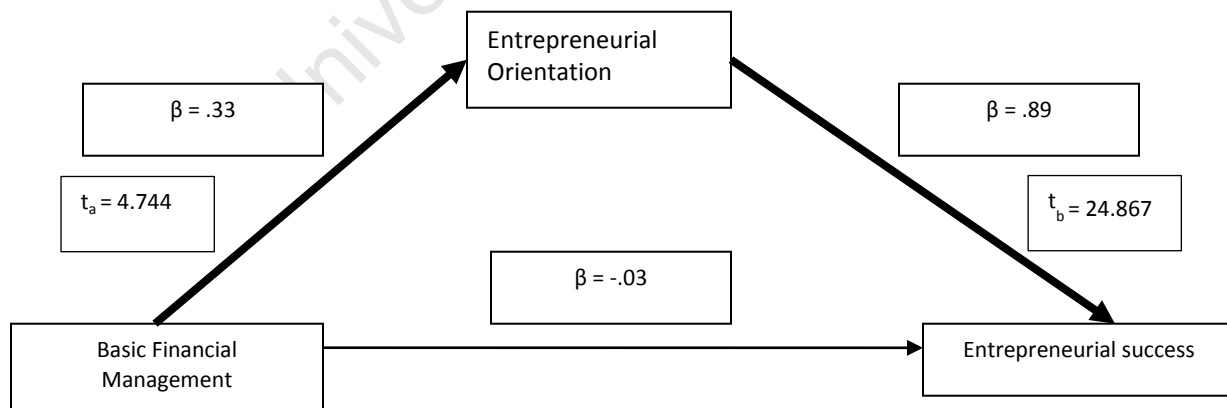


Table 4.41: Mediating Effects of Entrepreneurial Orientation on the Relationship between Basic Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	p-value
1	Entrepreneurial Orientation	Basic Financial Management Practices	.33*	4.744*	22.502*	< .05
2	Entrepreneurial Success	Basic Financial Management Practices	.26*	3.689*	13.608*	< .05
3	Entrepreneurial Success	Basic Financial Management Practices	-.032	-.902	338.098	< .05
		Entrepreneurial Orientation	.89*	24.867*		

Table 4.42: Sobel Testing For Mediation

	Input	Test	Test statistic	p-value
t_a	4.744	Sobel test	4.660	0.000*
t_b	24.867	Aroian test	4.656	0.000*
		Goodman test	4.664	0.000*

Note – p-values less than .05 denotes significance *

In step 1, the mediator, entrepreneurial orientation was regressed on the predictor variable, basic financial management practices and the relationship is statistically significant ($\beta = .33$, $p < .05$). In step 2, the predictor, basic financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .26$, $p < .05$). In step 3, the predictor, basic financial management practices and the mediator, entrepreneurial orientation was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are less than .05 demonstrating that entrepreneurial orientation is a mediator. Consequently, hypothesis H3b is supported.

Figure 10: Mediating effects of EO on Advanced Management Practices-Entrepreneurial Success

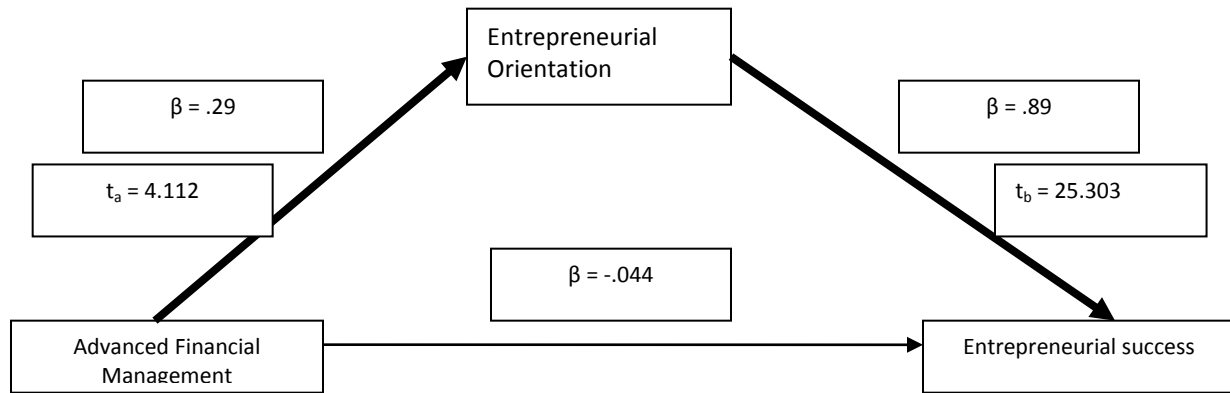


Table 4.43: Mediating Effects of Entrepreneurial Orientation on the Relationship between Advanced Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	p-value
1	Entrepreneurial Orientation	Advanced Financial Management Practices	.29*	4.112*	16.910*	< .05
2	Entrepreneurial Success	Advanced Financial Management Practices	.21*	2.996*	8.977*	< .05
3	Entrepreneurial Success	Advanced Financial Management Practices Entrepreneurial Orientation	-.044 .89*	-1.235 25.303*	339.724	< .05

In terms of Baron and Kenny’s mediation model the first two models must reflect statistical significance in line with establishing mediation. More specifically, the relationship between the predictor, advanced financial management practices, and the criterion, entrepreneurial orientation, must be statistically significant ($p < .05$). Model 3 presents an additional step for testing mediation and involves testing the relationship between the criterion, entrepreneurial success and the predictor/mediator variables (advanced financial management practices and entrepreneurial orientation) through the Sobel test below.

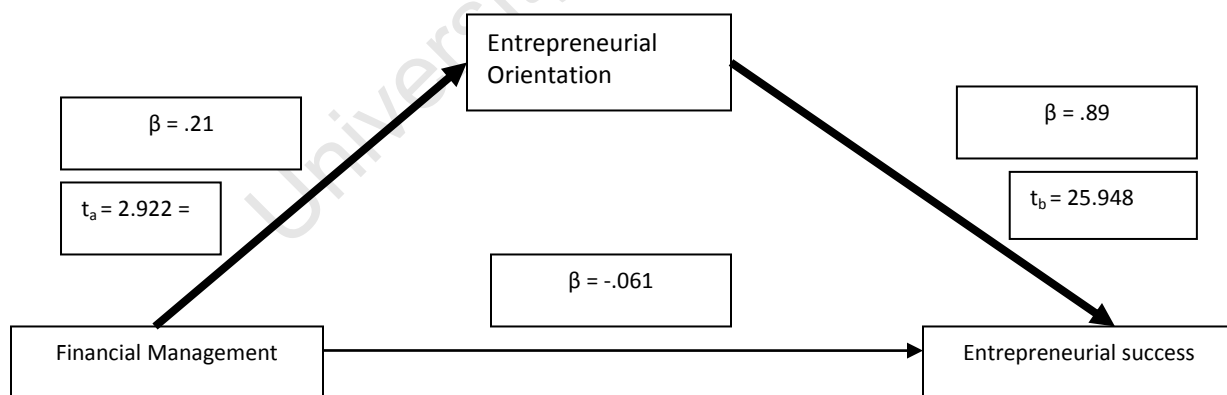
Table 4.44: Sobel Testing For Mediation

	Input	Test	Test statistic	p-value
t_a	4.112	Sobel test	4.059	0.000*
t_b	25.303	Aroian test	4.056	0.000*
		Goodman test	4.062	0.000*

Note – p-values less than .05 denotes significance *

In step 1, the mediator, entrepreneurial orientation was regressed on the predictor variable, advanced financial management practices and the relationship is statistically significant ($\beta = .29, p < .05$). In step 2, the predictor, advanced financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .21, p < .05$). In step 3, the predictor, advanced financial management practices and the mediator, entrepreneurial orientation was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are less than .05 demonstrating that entrepreneurial orientation is a mediator. Consequently, hypothesis H3c is supported.

Figure 11: Mediating effects of EO on Financial Management Practices-Entrepreneurial Success



In terms of Baron and Kenny's mediation model the first two models must reflect statistical significance. More specifically, the relationship between the predictor, financial management practices, and the criterion, entrepreneurial orientation, must be statistically significant ($p < .05$). Testing for mediation in model 3 involves testing the relationship between the criterion,

entrepreneurial success and the predictor/mediator variables (financial management practices and entrepreneurial orientation) through the Sobel test below.

Table 4.45: Mediating Effects of Entrepreneurial Orientation on the Relationship between Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	P-values
1	Entrepreneurial Orientation	Financial Management Practices	.21*	2.922*	8.540*	< .05
2	Entrepreneurial Success	Financial Management Practices	.12*	1.730*	2.991*	< .05
3	Entrepreneurial Success	Financial Management Practices	-.061	-1.777	343.443	< .05
		Entrepreneurial Orientation	.89*	25.948*		

In terms of Baron and Kenny's mediation model the first two models must reflect statistical significance in line with establishing mediation. More specifically, the relationship between the predictor, financial management practices, and the criterion, entrepreneurial orientation, must be statistically significant ($p < .05$). Model 3 presents an additional step for testing mediation and involves testing the relationship between the criterion, entrepreneurial success and the predictor/mediator variables (financial management practices and entrepreneurial orientation) through the Sobel test below.

Table 4.46: Sobel Testing For Mediation

	Input	Test	Test statistic	p-value
t_a	2.922	Sobel test	2.903	0.004*
t_b	25.948	Aroian test	2.902	0.004*
		Goodman test	2.906	0.004*

Note – p-values below .05 denotes significance*

In step 1, the mediator, entrepreneurial orientation was regressed on the predictor variable, financial management practices and the relationship is statistically significant ($\beta = .29, p < .05$). In step 2, the predictor, financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .21, p < .05$). In step 3, the predictor, financial management practices and the mediator, entrepreneurial orientation was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are less than .05 demonstrating that entrepreneurial orientation is a mediator. Hence, hypothesis H3d is supported.

4.6.3 MEDIATING EFFECTS OF COMPLETE PLANNING STRATEGY, CRITICAL POINT PLANNING STRATEGY, OPPORTUNISTIC PLANNING STRATEGY, REACTIVE PLANNING STRATEGY

Figure 12: Mediating Effects of Complete Planning Strategy on Financial Management Practices-Entrepreneurial Success

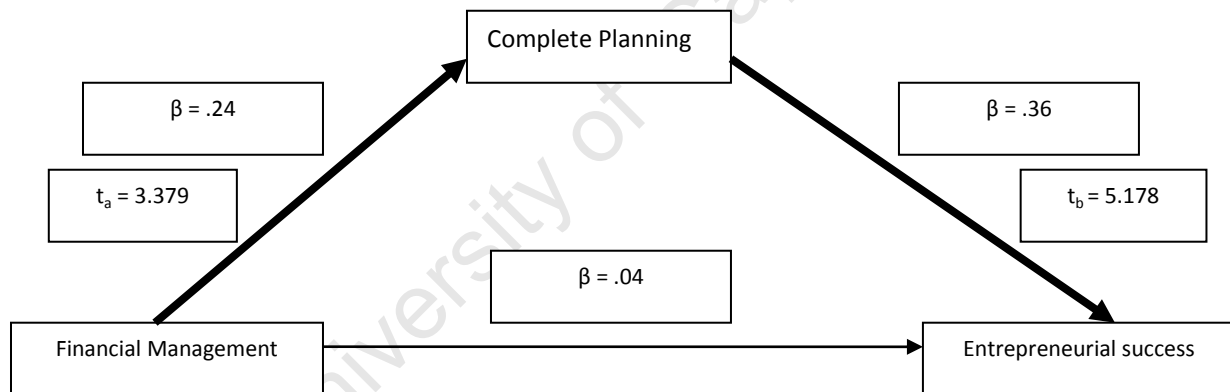


Table 4.47: Mediating Effects of Complete Planning On the Relationship between Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	p-value
1	Complete Planning	Financial Management Practices	.24*	3.379*	11.417*	< .05
2	Entrepreneurial Success	Financial Management Practices	.12*	1.730*	2.991*	< .05
3	Entrepreneurial Success	Financial Management Practices Complete Planning	.04 .36*	.558 5.178*	15.102	< .05

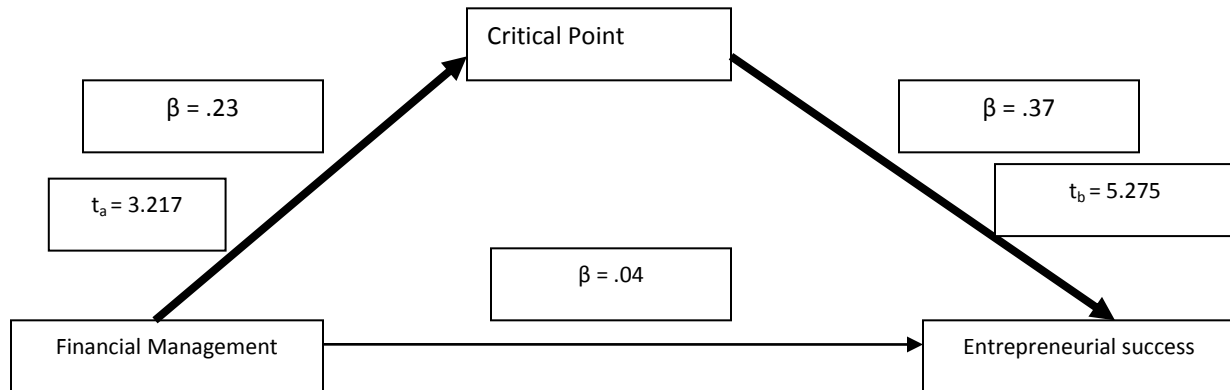
Table 4.48: Sobel Testing For Mediation

	Input	Test	Test statistic	p-value
t_a	3.379	Sobel test	2.830	0.005*
t_b	5.178	Aroian test	2.793	0.005*
		Goodman test	2.867	0.004*

Note – p-values below .05 denotes significance*

In step 1, the mediator, complete planning was regressed on the predictor variable, financial management practices and the relationship is statistically significant ($\beta = .24$, $p < .05$). In step 2, the predictor, financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .12$, $p < .05$). In step 3, the predictor, financial management practices and the mediator, complete planning was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are less than .05 demonstrating that complete planning is a mediator. Hence, hypothesis H4b is supported.

Figure 13: mediating effects of critical point planning on financial management practices-entrepreneurial success



In terms of Baron and Kenny’s mediation model the first two models must reflect statistical significance. More specifically, the relationship between the predictor, financial management practices, and the criterion, critical point planning, must be statistically significant ($p < .05$). Testing for mediation in model 3 involves testing the relationship between the criterion, entrepreneurial success and the predictor/mediator variables (financial management practices and critical point planning) through the Sobel test below.

Table 4.49: Mediating Effects of Critical Point Planning On the Relationship between Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	p-value
1	Critical Point Planning	Financial Management Practices	.23*	3.217*	10.351*	< .05
2	Entrepreneurial Success	Financial Management Practices	.12*	1.730*	2.991*	< .05
3	Entrepreneurial Success	Financial Management Practices Critical Point Planning	.04 .37*	.600 5.275*	15.621	< .05

In terms of Baron and Kenny’s mediation model the first two models must reflect statistical significance in line with establishing mediation. More specifically, the relationship between the predictor, financial management practices, and the criterion, critical point planning, must be

statistically significant ($p < .05$). Model 3 presents an additional step for testing mediation and involves testing the relationship between the criterion, entrepreneurial success and the predictor/mediator variables (financial management practices and critical point planning) through the Sobel test below.

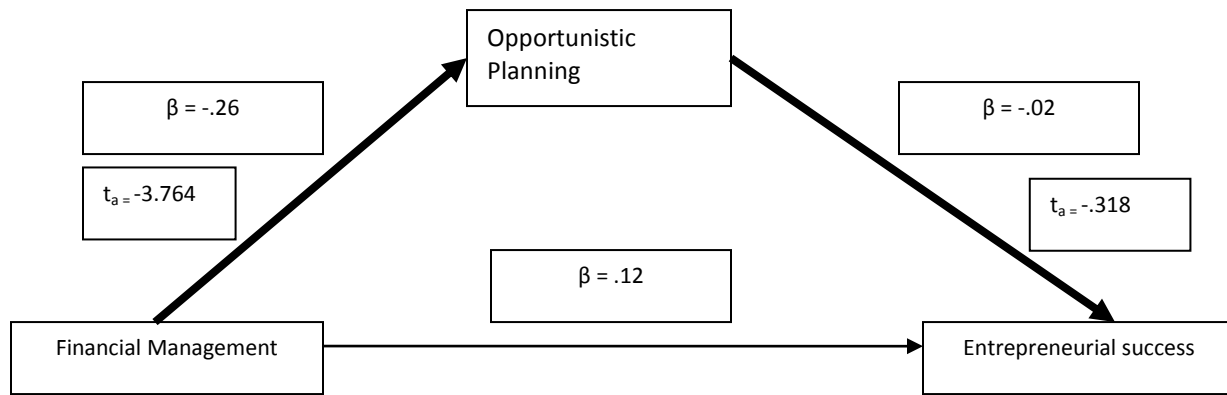
Table 4.50: Sobel Test For Mediation

	Input	Test	Test statistic	p-value
t_a	3.217	Sobel test	2.747	0.006*
t_b	5.275	Aroian test	2.711	0.006*
		Goodman test	2.783	0.005*

Note – p-values less than .05 denotes significance*

In step 1, the mediator, critical point planning was regressed on the predictor variable, financial management practices and the relationship is statistically significant ($\beta = .23, p < .05$). In step 2, the predictor, financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .12, p < .05$). In step 3, the predictor, financial management practices and the mediator, critical point planning was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are less than .05 demonstrating that complete planning is a mediator. Therefore, hypothesis H4c is supported.

Figure 14: Mediating effects of Opportunistic Planning Strategy on Financial Management Practices-Entrepreneurial Success



In terms of Baron and Kenny’s mediation model the first two models must reflect statistical significance. More specifically, the relationship between the predictor, financial management practices, and the criterion, opportunistic planning, must be statistically significant ($p < .05$). Testing for mediation in model 3 involves testing the relationship between the criterion, entrepreneurial success and the predictor/mediator variables (financial management practices and opportunistic planning) through the Sobel test below.

Table 4.51: Mediating Effects of Opportunistic Planning On the Relationship between Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	P-values
1	Opportunistic Planning	Financial Management Practices	-.26*	-3.764*	14.165*	$P < .05$
2	Entrepreneurial Success	Financial Management Practices	.12*	1.730*	2.991*	$P < .05$
3	Entrepreneurial Success	Financial Management Practices	.12	1.581	1.539	
		Opportunistic Planning	-.02	-.318		

In terms of Baron and Kenny's mediation model the first two models must reflect statistical significance in line with establishing mediation. More specifically, the relationship between the predictor, financial management practices, and the criterion, opportunistic planning, must be statistically significant ($p < .05$). Model 3 presents an additional step for testing mediation and involves testing the relationship between the criterion, entrepreneurial success and the predictor/mediator variables (financial management practices and opportunistic planning) through the Sobel test below.

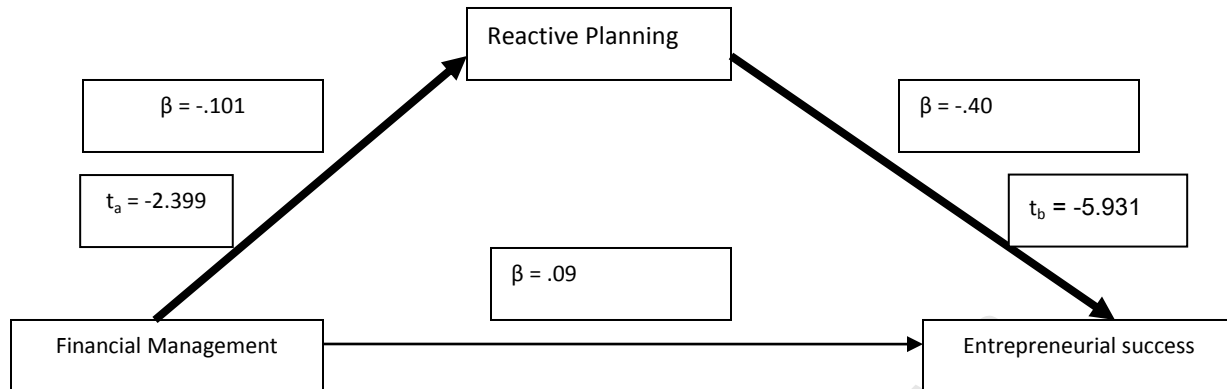
Table 4.52: Sobel Testing For Mediation

	Input	Test	Test statistic	p-value
t_a	-3.764	Sobel test	0.317	0.751
t_b	-.318	Aroian test	0.306	0.759
		Goodman test	0.329	0.742

Note – p-values less than .05 denotes significance*

In step 1, the mediator, opportunistic planning was regressed on the predictor variable, financial management practices and the relationship is statistically significant ($\beta = -.26$, $p < .05$). In step 2, the predictor, financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .12$, $p < .05$). In step 3, the predictor, financial management practices and the mediator, opportunistic planning was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are greater than .05 demonstrating that opportunistic planning is not a mediator. Hence, hypothesis H4c is not supported.

Figure 15: Mediating Effects of Reactive Planning Strategy on Financial Management Practices-Entrepreneurial Success



In terms of Baron and Kenny’s mediation model the first two models must reflect statistical significance. More specifically, the relationship between the predictor, financial management practices, and the criterion, reactive planning, must be statistically significant ($p < .05$). Testing for mediation in model 3 involves testing the relationship between the criterion, entrepreneurial success and the predictor/mediator variables (financial management practices and reactive) through the Sobel test below.

Table 4.53: Mediating Effects of Reactive Planning On the Relationship between Financial Management Practices and Entrepreneurial Success

Model	Criterion	Predictor	Beta	T	F	p-value
1	Reactive Planning	Financial Management Practices	-.10*	-2.399*	1.959*	< .05
2	Entrepreneurial Success	Financial Management Practices	.12*	1.730*	2.991*	< .05
3	Entrepreneurial Success	Financial Management Practices Reactive Planning	.09 -.40*	1.270 -5.931*	19.356	< .05

In terms of Baron and Kenny’s mediation model the first two models must reflect statistical significance in line with establishing mediation. More specifically, the relationship between the

predictor, financial management practices, and the criterion, reactive planning, must be statistically significant ($p < .05$). Model 3 presents an additional step for testing mediation and involves testing the relationship between the criterion, entrepreneurial success and the predictor/mediator variables (financial management practices and reactive planning) through the Sobel test below.

Table 4.54: Sobel Testing For Mediation

	Input	Test	Test statistic	p-value
t_a	-2.399	Sobel test	2.224	0.026*
t_b	5.931	Aroian test	2.197	0.028*
		Goodman test	2.252	0.024*

Note – p-values less than .05 denotes significance*

In step 1, the mediator, reactive planning was regressed on the predictor variable, financial management practices and the relationship is statistically significant ($\beta = -.10$, $p < .05$). In step 2, the predictor, financial management practices was regressed against the dependent variable, entrepreneurial success and the relationship is statistically significant ($\beta = .12$, $p < .05$). In step 3, the predictor, financial management practices and the mediator, reactive planning was regressed on the dependent variable, entrepreneurial success. In terms of the Sobel test to determine full mediation effects, all the p-values are less than .05 demonstrating that reactive planning is a mediator. Hence, hypothesis H4d is supported.

4.7 MODERATION EFFECTS

Tables 4.55 through 4.58 report the results of hierarchical regression analyses in examining the interaction effects of the strategy process characteristics on financial management practices and various dimensions of success (sales growth, client growth and entrepreneurial success).

Hierarchical regression analyses allow for a comparison between alternative models with the interaction terms, where the interaction only exists if it contributes significantly to the variance explained in the dependent variable over the main effects of the independent variables (Jaccard and Turrisi, 2003). The independent variables were mean-centred prior to the formation of the

interaction term as suggested by Aitken and West (1991). In addition, the variance inflation factor (VIF) values were assessed and no multi-collinearity problems were found. Tables 4.54 through 4.57 present three models per dimension of success (client growth success, sales growth success and entrepreneurial success). In the first step the control variables are entered (model 1). In the second step, while holding the control variables constant financial management practices and the moderating variable is entered (model 2). In the third step, while holding the control variables constant the interaction effect is determined (model 3).

4.7.1 INTERACTION EFFECTS OF COMPLETE PLANNING ON FINANCIAL MANAGEMENT PRACTICES-SUCCESS

Table 4.55: Interaction Effects of Complete Planning On Financial Management Practices-Success

Variables	Sales growth			Client growth			Entrepreneurial success		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Controls									
Firm size	-.08	-.07	-.09	-.10	-.09	-.09	-.09	-.07	-.09
Firm age	-.13	-.08	-.10	-.15	-.09	-.10	-.12	-.05	-.06
Environment	.20*	.14*	.12†	.22**	.22*	.15*	.24**	.16**	.14*
Main effects									
Financial management	.06	-.05	-.39*	.16*	.04	-.08	-.03	-.03	-.31
Complete Planning		.40**	.04		.45**	.33†		.55**	.26
Two-way interactions									
Financial Management X Complete Planning			.58**			.19**			.48**
r^2	.07	.20**	.22**	.10†	.28**	.28**	.09†	.36**	.39**
Δr^2	.07	.14**	.02**	.10†	.17**	.00**	.09†	.27**	.03**
F	2.53	7.94**	7.95**	3.61†	10.11**	10.11**	3.25†	13.01**	14.08**
P	.16	.00**	.00**	.08†	.00**	.00**	.10†	.00**	.00**

Standardized coefficients are reported.

**p < .01, *p < .05, † p < .10

Figure 16: Interaction effect of complete planning on Sales Growth-Financial Management Practices

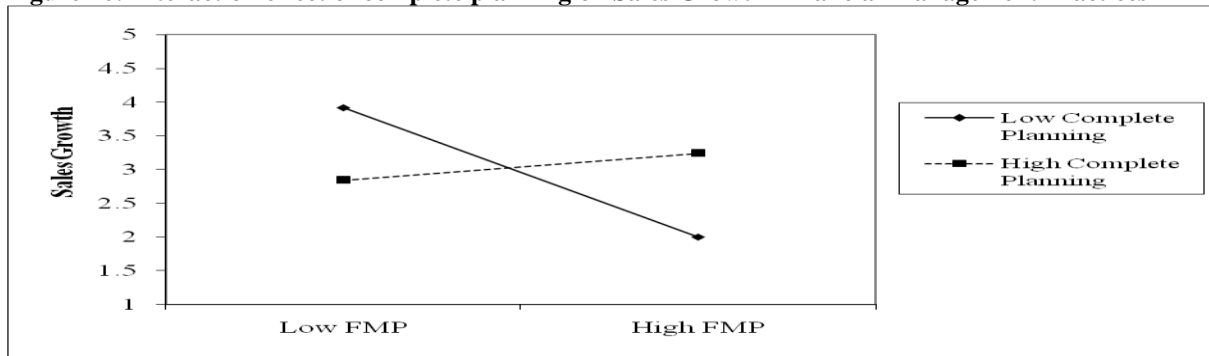


Figure 17: Interaction effect of complete planning on Client Growth-Financial Management Practices

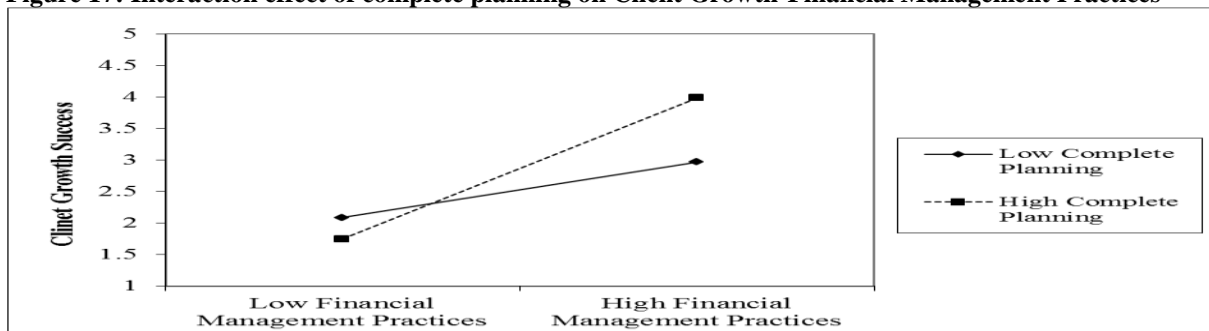
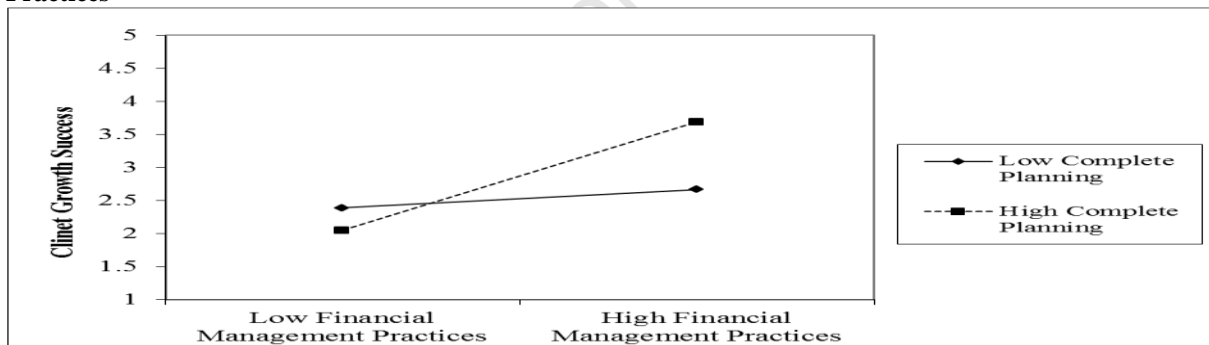


Figure 18: Interaction effect of complete planning on Entrepreneurial Success-Financial Management Practices



Hypothesis H₅ predicts positive moderation effects of complete planning strategy on the relationship of financial management practices and entrepreneurial success. The interaction effect of complete planning strategy as a moderator is significant for sales growth success ($\Delta r^2 = .02$, $p < .01$), client growth success ($\Delta r^2 = .00$, $p < .01$) and entrepreneurial success ($\Delta r^2 = .03$, $p < .01$). The interaction term improved the explanatory power of the model over the main effects of the independent variables.

In order to understand the nature of the interaction, the effects of complete planning strategy are plotted for high levels and low levels illustrated in Figures 16, 17 and 18. This finding provides strong support for hypothesis 5a. Figures 16, 17 and 18 indicate that high levels of complete planning strategy create a positive relationship between sales growth, client growth, entrepreneurial success and financial management practices. However, lower levels result in a negative relationship between financial management practices and success as indicated in Figures 16, 17 and 18.

Consequently, hypothesis 5 is supported.

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4.7.2 INTERACTION EFFECTS OF CRITICAL POINT PLANNING ON FINANCIAL MANAGEMENT PRACTICES-SUCCESS

Table 4.56: Interaction Effects of Critical Point Planning On Financial Management Practices-Success

Variables	Sales growth			Client growth			Entrepreneurial success		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Controls									
Firm size	.00	.02	.02	-.10	-.07	-.07	-.09	-.06	-.06
Firm age	-.06	-.03	-.03	-.15	-.10	-.10	-.12	-.06	-.06
Environment	.12	.11	.11	.22**	.20**	.20**	.24**	.21**	.21**
Main effects									
Financial management	.16*	.12	.11	.16*	.10	.16	.12†	.05	-.17
Critical Point Planning		.28**	.28		.41**	.47*		.51**	.29†
Two-way interactions									
Financial Management X Critical Point Planning			.14			-.10			.34
r ²	.05	.10*	.12*	.10*	.24**	.26**	.09*	.34**	.35**
Δ r ²	.05	.08*	.02*	.10*	.16**	.02**	.09*	.25**	.01**
F	1.81	3.61*	4.33*	3.61*	8.67**	9.39**	3.25*	12.28*	12.64*
P	.25	.04*	.02*	.04*	.00**	.00**	.05*	.00**	.00**

Standardized coefficients are reported.

**p < .01, *p < .05, † p < .10

Figure 19: Interaction effect of Critical Point Planning on Sales Growth-Financial Management Practices

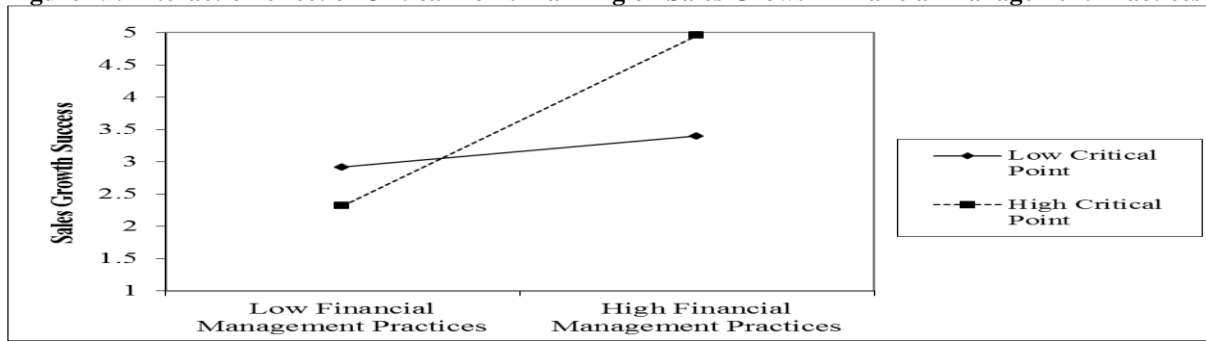


Figure 20: Interaction effect of Critical Point Planning on Client Growth-Financial Management Practices

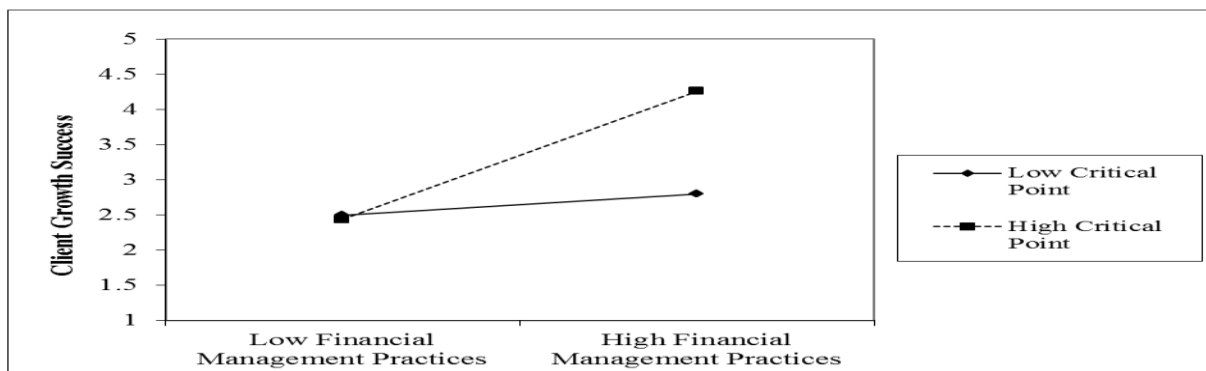
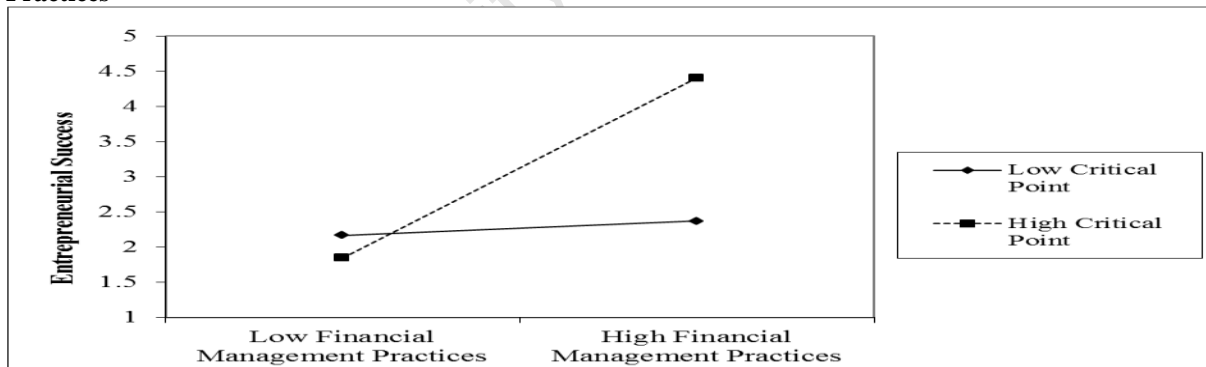


Figure 21: Interaction effect of Critical Point Planning on Entrepreneurial Success-Financial Management Practices



Hypothesis H5b predicts positive moderation effects of critical planning strategy on the relationship of success and financial management practices and entrepreneurial success. The interaction effect of critical point planning strategy as a moderator is significant for sales

growth success ($\Delta r^2 = .02$, $p < .05$), client growth success ($\Delta r^2 = .02$, $p < .01$) and entrepreneurial success ($\Delta r^2 = .01$, $p < .01$).

To understand the nature of the interaction, the effects of high and low levels of critical point planning strategy are plotted against financial management practices and sales growth, client growth and entrepreneurial success. For high and low levels of critical point planning strategy the relationship between financial management practices and success is positive. This finding provides strong evidence for hypothesis 6.

Therefore hypothesis 6 is accepted.

4.7.3 INTERACTION EFFECTS OF REACTIVE PLANNING ON FINANCIAL MANAGEMENT PRACTICES-SUCCESS

Table 4.57: Interaction Effect of Reactive Planning On Financial Management Practices-Success

Variables	Sales growth			Client growth			Entrepreneurial success		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Controls									
Firm size	-.08	-.11	-.10	-.10	-.13†	-.11†	-.09	-.12	-.10
Firm age	-.13†	-.12†	-.13*	-.15*	-.14*	-.15*	-.12	-.11	-.12†
Environment	.20**	.14*	.14*	.22**	.16*	.15*	.24**	.17*	.16*
Main effects									
Financial management	.06	.03	-.01	.16*	.14*	.06	.12†	.09	.00
Reactive Planning		-.34**	-.43**		-.34**	-.50**		-.37**	-.57**
Two-way interactions									
Financial Management X Reactive Planning			.12			.21			.25
r^2	.07	.17**	.18**	.10†	.21†	.23**	.09†	.22**	.24**
Δr^2	.07	.11**	.01**	.10†	.11†	.02**	.09†	.13**	.02**
F	2.53	6.14**	6.50**	3.61†	7.58†	8.31**	3.25†	7.95**	8.67**
P	.16	.00**	.00**	.08†	.06†	.00**	.10†	.00**	.00**

Standardized coefficients are reported.

** $p < .01$, * $p < .05$, † $p < .10$

Figure 22: Interaction effect of Reactive Planning on Sales Growth-Financial Management Practices

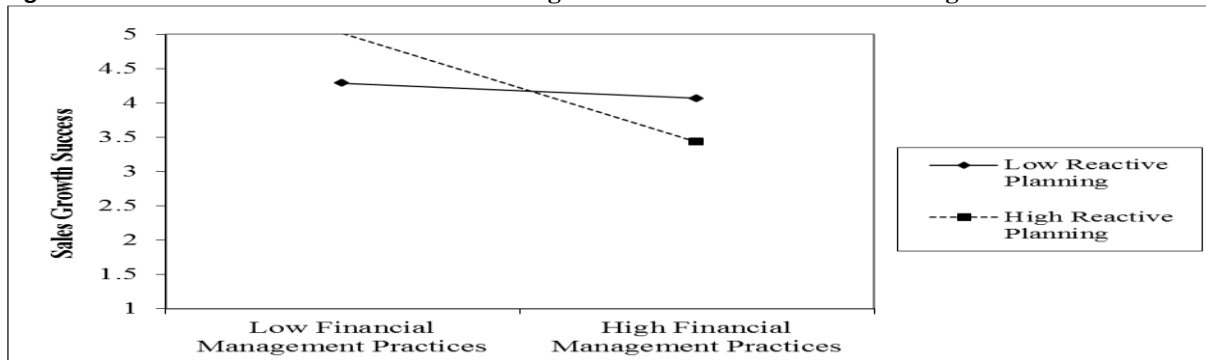


Figure 23: Interaction effect of Reactive Planning on Client Growth-Financial Management Practices

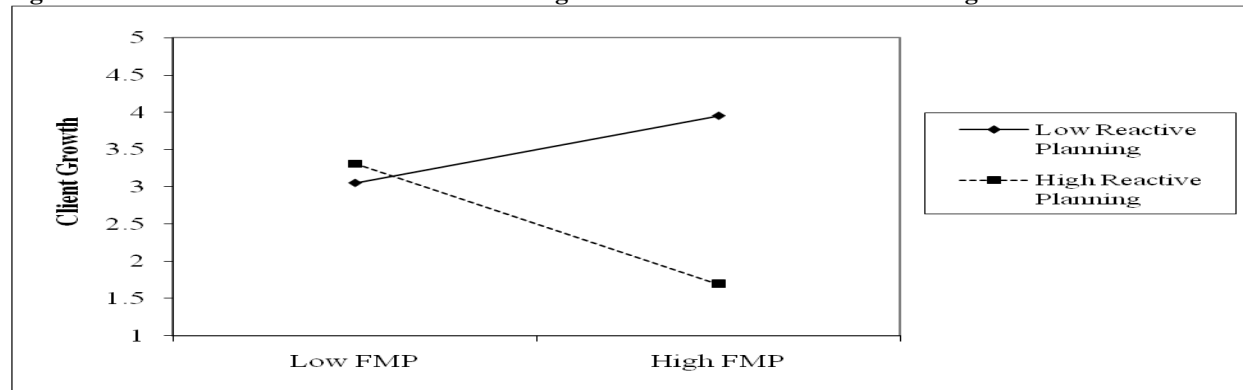
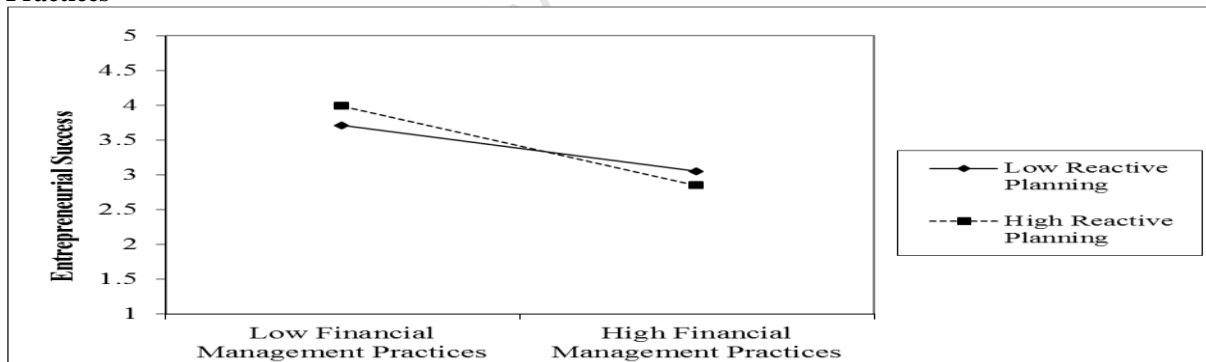


Figure 24: Interaction effect of Reactive Planning on Entrepreneurial Success-Financial Management Practices



Hypothesis 8 predicts moderating effects of reactive planning strategy on the relationship between financial management practices and dimensions of success. Significant interaction effects were found for client growth ($\Delta r^2 = .01$, $p < .00$), sales growth ($\Delta r^2 = .02$, $p < .01$) and entrepreneurial success ($\Delta r^2 = .02$, $p < .01$). This finding provides strong evidence for hypotheses 8. High and low values of reactive strategy create a negative relationship between financial management practices and sales growth success. High and low values of reactive

strategy create a negative relationship between financial management practices and entrepreneurial success. High values of reactive strategy create a negative relationship while low values create a positive relationship between financial management practices and client growth success.

Therefore hypothesis 8 is accepted.

Hypotheses 5 to 8 predict positive moderating effects of action templates of complete planning and critical point planning strategies between financial management practices and success, while reactive planning strategies predict negative moderating effects between financial management practices and success.

4.7.4 INTERACTION EFFECTS OF ENTREPRENEURIAL ORIENTATION ON FINANCIAL MANAGEMENT PRACTICES-SUCCESS

Table 4.58: Interaction Effects of Entrepreneurial Orientation on Financial Management Practices-Success

Variables	Sales growth			Client growth			Entrepreneurial success		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Controls									
Firm size	-.08	-.04	-.04	-.10	-.07	-.07	-.09	-.05	-.05
Firm age	-.13†	-.06	-.07	-.15*	-.10†	-.11*	-.12	-.04	-.06
Environment	.20**	-.02	-.02	.22**	.07†	.04	.24**	.02	-.01
Main effects									
Financial management	.06	.03	.01	.16*	.16	.06	.12†	.09*	.02
Entrepreneurial Orientation		.81**	.80**		.58**	.51**		.83**	.78**
Two-way interactions									
Financial Management X Entrepreneurial Orientation			.14			.19			.17
r^2	.07	.67**	.67**	.10†	.41**	.43**	.09	.73**	.75**
Δr^2	.07	.60**	.00**	.10†	.31**	.02**	.09	.64**	.02**
F	2.53	24.20*	24.20*	3.61†	14.81*	15.53*	3.25	26.36*	27.09*
P	.17	.00**	.00**	.08†	.00**	.00**	.11	.00**	.00**

Standardized coefficients are reported.

**p < .01, *p < .05, † p < .10

Figure 25: Interaction effect of Entrepreneurial Orientation on Sales Growth-Financial Management Practices

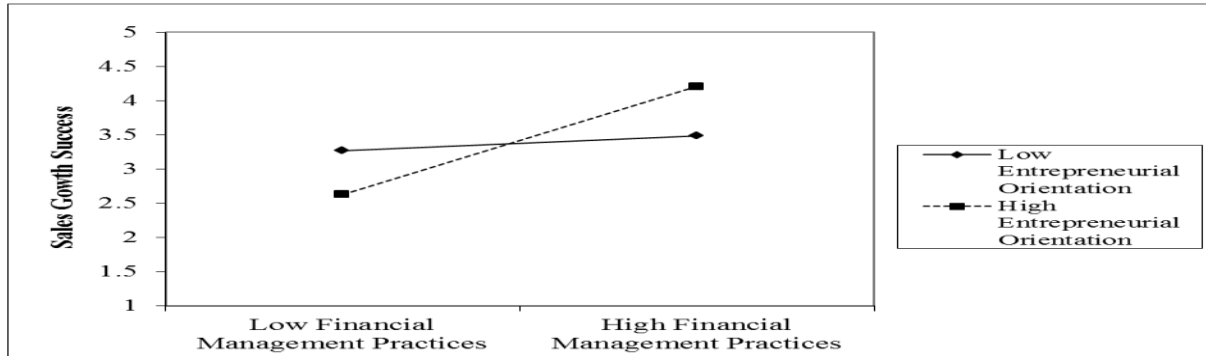


Figure 26: Interaction effect of Entrepreneurial Orientation on Client Growth-Financial Management Practices

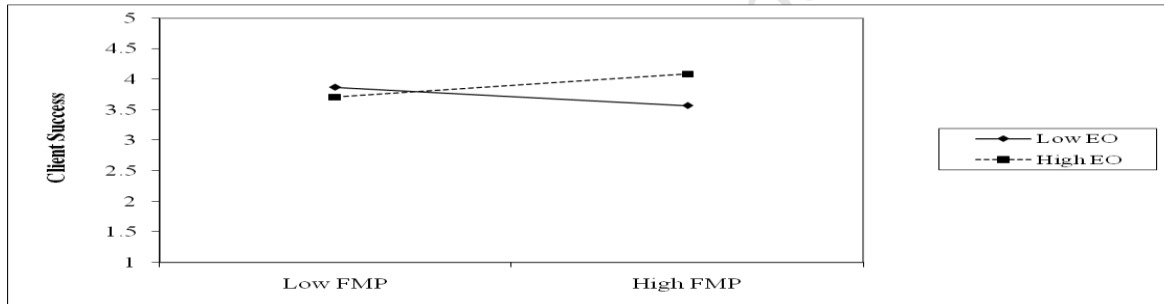
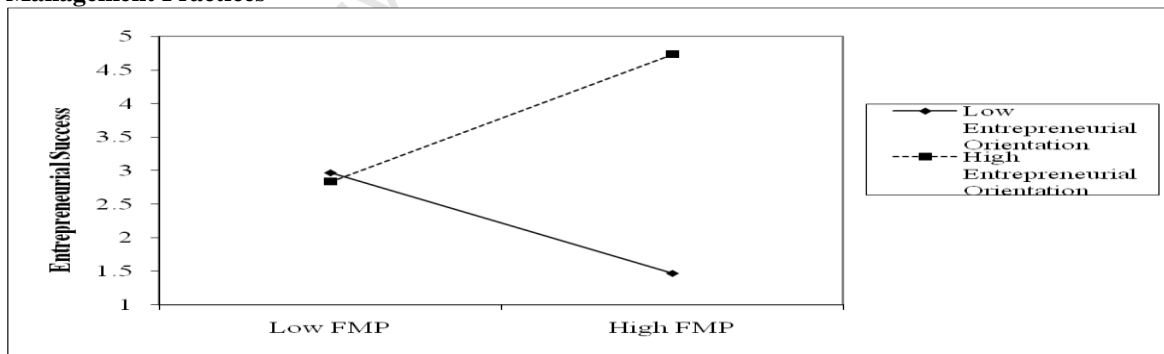


Figure 27: Interaction effect of Entrepreneurial Orientation on Entrepreneurial Success-Financial Management Practices



Hypothesis H₉ predicts positive moderation effects of entrepreneurial orientation on the relationship of entrepreneurial success and financial management practices. Entrepreneurial orientation represented the combined variable and the interaction effects were statistically

significant with client growth ($\Delta r^2 = .02$, $p < .05$), sales growth success ($\Delta r^2 = .00$, $p < .05$) and entrepreneurial success ($\Delta r^2 = .02$, $p < .05$). The interaction term improved the explanatory power of the model over the main effects of the independent variables.

To understand the nature of the interaction, the effects of high and low levels of entrepreneurial orientation are plotted against financial management practices and entrepreneurial success. This finding provides strong support for hypothesis 9. The relationship between financial management practices and all the dimensions of success are positive at high levels of entrepreneurial orientation (see Figure 25, 26 and 27).

In summary, no significant relationships were found between human capital and entrepreneurial success, however, mediating effects were found with human capital on the basic financial management practices-entrepreneurial success relationship. A small significant relationship was found between financial management practices and client growth success. Full mediating and moderating effects were found with entrepreneurial orientation, complete planning, critical point planning and reactive planning on financial management practices-success relationships.

Table 4.59: Summary of Hypotheses Results

Hypothesis		Result
H₁	Human Capital is positively related to Entrepreneurial Success	Not Supported
H₂	Financial Management Practices is positively related to Entrepreneurial Success	Not Supported
H_{2a}	Financial Management Practices is positively related to Entrepreneurial Success and is mediated by Human Capital.	Not Supported
H_{2b}	Basic Financial Management Practices is positively related to Entrepreneurial Success and is mediated by Human Capital.	Supported
H_{2c}	Advanced Financial Management Practices is positively related to Entrepreneurial Success and is mediated by Human Capital.	Not Supported
H₃	Entrepreneurial Orientation is positively related to Entrepreneurial Success	Supported
H_{3a}	Entrepreneurial Orientation and its components, Innovation, Autonomy, Personal Initiative, Risk-taking, Achievement and Learning have additive effects to Entrepreneurial Success when added to Financial Management Practices.	Supported
H_{3b}	Entrepreneurial Orientation mediates the relationship between Basic Financial Management Practices and Entrepreneurial Success	Supported
H_{3c}	Entrepreneurial Orientation mediates the relationship between Advanced Financial Management Practices and Entrepreneurial Success	Supported
H_{3d}	Entrepreneurial Orientation mediates the relationship between Financial Management Practices and Entrepreneurial Success	Supported
H₄	Complete Planning and Critical Planning is positively related to Entrepreneurial Success while Opportunistic and Reactive Planning is negatively related to Entrepreneurial Success.	Supported
H_{4a}	Complete Planning and Critical Point Planning have additive effects to Entrepreneurial Success when added to Financial Management Practices while Opportunistic Planning and Reactive Planning Strategies have negative effects to Entrepreneurial Success when added to Financial Management Practices. Strategy Process Characteristics have additive effects to Entrepreneurial Success when added to Financial Management Practices.	Supported
H_{4b}	Complete Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.	Supported
H_{4c}	Critical Point Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.	Supported
H_{4d}	Opportunistic Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.	Not Supported
H_{4e}	Reactive Planning Strategies mediate the relationship between Financial Management Practices and Entrepreneurial Success.	Supported
H₅	Complete Planning Strategies moderate the relationship between Financial Management Practices and Entrepreneurial Success	Supported
H₆	Critical Point Planning Strategies moderate the relationship between Financial Management Practices and Entrepreneurial Success	Supported
H₇	Opportunistic Planning Strategies moderate the relationship between Financial Management Practices and Entrepreneurial Success	Not supported
H₈	Reactive Planning Strategies moderate the relationship between Financial Management Practices and Entrepreneurial Success.	Supported
H₉	Entrepreneurial Orientation moderates the relationship between Financial Management Practices and Entrepreneurial Success	Supported

CHAPTER 5: ANALYSIS AND DISCUSSION

This chapter discusses and analyses the results of the hypotheses tests presented in the previous chapter. The chapter is organised into three sections. The first section discusses and analyses the main effects of human capital-entrepreneurial success, financial management practices-entrepreneurial success, entrepreneurial orientation-entrepreneurial success, complete planning-entrepreneurial success, critical point planning-entrepreneurial success, opportunistic planning-entrepreneurial success and reactive planning-entrepreneurial success.

The second section discusses the mediating effects of strategy process characteristics and the individual action templates on the relationship between financial management practices and entrepreneurial success; the mediating effects of entrepreneurial orientation on the relationship between financial management practices and entrepreneurial success; and the mediating effects of human capital on the relationship between financial management practices and entrepreneurial success.

The third section of this chapter discusses the moderating effects of strategy process characteristics and the individual action templates on the relationship between financial management practices and entrepreneurial success; and, moderating effects of entrepreneurial orientation on the relationship between financial management practices and entrepreneurial success.

MAIN EFFECTS

The results in Chapter 4 were reported in relation to main effects, mediating and moderating effects of action strategy variables (strategy process characteristics and entrepreneurial orientation) on financial management practices-entrepreneurial success. These results are discussed and analysed below.

5.1. HUMAN CAPITAL AND ENTREPRENEURIAL SUCCESS

Previous studies have shown that goals and plans act as mediators between human capital and success (Rauch and Frese, 2000). They also point out that human capital is important for business success in complex situations and point out that no well-developed theories are available on the mechanisms that lead to success. Although it has been argued that human capital is an important factor for entrepreneurial success, previous research findings are inconclusive, particularly when addressing the mechanisms of how human capital of entrepreneurs leads to entrepreneurial success (Cooper and Gimeno-Gascon, 1994).

In this study, when examining the relationship between human capital and entrepreneurial success, no direct correlation was found. Bruederl (1992) argues that many studies have found such small coefficient values between human capital and business success and points to the fact that human capital is often used as a proxy measure, such as the number of schooling years, number of years working as a manager and number of years of general working experience. Other studies indicate that although the relationship between human capital and success is well established, the magnitude of this relationship is uncertain as well as the possible mediating effect of the circumstances (Unger *et al.*, 2010). Some researchers suggest that experience in general is not a direct measure of the entrepreneurial knowledge and related skills that are required to execute entrepreneurial tasks and strategies (Bruederl, Preisendoerfer and Ziegler 1992).

Some researchers have found a significant relationship between human capital of founders in relation to new venture success and this has been demonstrated through 29 meta-analyses. These results have been of particular value to venture capitalists (Rob and Fairlie, 2009). These studies draw on instrumental value theory and assess the value of different human capital resources in relation to new venture performance.

Human capital in this study relates to knowledge and skills that are necessary to operate a business successfully. For example, respondents were asked about their general education levels, past working experience (including management and entrepreneurship experience) and whether they had obtained entrepreneurial training.

This study also highlights the importance of human capital as intangible resources. Generally, studies involving the impact of human capital on the relationship between strategy and performance at the firm level emphasize that intangible resources are more likely than tangible resources to produce a competitive advantage. In particular, intangible firm-specific resources such as knowledge allow firms to add value to incoming factors of production, particularly firms that operate within dynamic environments (Hitt, 2001). Grant (1996) suggests that knowledge is the most critical competitive asset that a firm possesses. Much of an organisation's knowledge resides in its human capital.

When examining the relationship between human capital and entrepreneurial success, the environmental conditions were dynamic implying a highly turbulent environment. Rauch and Frese (2000) analysis of seven quantitative studies involving the examination of the relationship between human capital and entrepreneurial success found an average coefficient of $\beta = .09$. These studies related to Chandler and Hanks (1996), Chandler and Jansen (1992), Chandler and Hanks (1994) and Goebel and Frese (1999), who also examined the relationship between human capital and entrepreneurial success under dynamic environmental conditions.

This study found significant mediation effects of human capital on the basic financial management practices-entrepreneurial success relationship. As pointed out by Rauch and Frese (2000), and Gimeno-Gascon (1994) human capital is important because it could make the entrepreneur more adaptable and more able to handle different business situations. Although no direct relationship between human capital and entrepreneurial success was found, mediating effects represent specific mechanisms through which success can be explained. Furthermore, it has been emphasized in the literature that more needs to be known about the mechanisms that impact on the human capital-entrepreneurial success relationship.

5.2 FINANCIAL MANAGEMENT PRACTICES AND ENTREPRENEURIAL SUCCESS

Often 'business management skills' are used interchangeably with 'entrepreneurial skills'. Current research points to four types of entrepreneurial skills, namely, personal, technical, business operations and management skills (Smith and Perks, 2006). Smith and Perks's (2006)

study emphasized the importance of entrepreneurial skills, including specific management skills such as financial management for start-up entrepreneurs. Both access to finance and financial management were implicated in the high failure rate of 75% of start-up entrepreneurs (Fatoki and Garwe, 2010). It is commonly accepted that access to finance is a major challenge to entrepreneurs in South Africa. However, research (see GEM 2003, 2005 and 2010) has indicated that entrepreneurs could improve their cash flow, better manage their overdrafts and improve access to finance with rudimentary financial management practices discussed in this study. While this may to some degree provide a solution it does not ensure a panacea for sustainable entrepreneurial growth and success.

Financial management practices represent the third dimension of action strategies in terms of the Giessen-Amsterdam Framework of Entrepreneurial Success, namely content strategy (Frese, 2000). Content strategy represents a very important element of the entrepreneur's formal strategy implemented in the business. Although content strategy (e.g. marketing strategy, operational management strategy and financial management strategy) are more commonly studied in organisational and management theory when studying planning in a formal context, studies have often introduced content strategy-performance studies in entrepreneurship research in isolation. Chandler (1962), Anshoff (1965) and Porter (1980) have emphasized that the introduction of studies involving contemporary strategies such as psychological strategies in entrepreneurship research are of major importance in order to study entrepreneurial success. Despite these claims by Chandler, Anshoff and Porter dating back as far as 1965 through 1980, this still holds true for contemporary entrepreneurship research.

Content strategy is concerned with the type of decision making and differs from strategy process characteristics, which relates to the action strategy formulation and implementation. In my study, the discerning point is that content strategy is seen to be independent to entrepreneurial orientation and strategy process characteristics. Studies have shown that effective strategy formation capability is a complex organisational resource that leads to superior performance in large organisations (Hart and Barnbury, 1994). Porter (1980) has distinguished some generic content strategies, namely, focus, differentiation and cost leadership emphasising usefulness of specific content strategies. In a focus strategy, the entrepreneur tends to concentrate on a particular market segment. In a differentiation strategy,

the entrepreneur tends to introduce a unique product or service into the market. In a cost leadership strategy, the entrepreneur focuses on driving costs down as the major strategy when competing in the market. These strategies have specific value in an organisational context, particularly in large organisations where functional management roles are well defined and specified. However, in smaller organisations where the entrepreneur tends to have a more profound influence in the business the situation is different in the sense that the entrepreneur is involved in most of the functional management areas within the business.

In my study content strategy relates to the implementation and use of financial management practice and financial administration. While the content strategy relates to the “what type of strategy” employed by the entrepreneur, strategy process characteristics and entrepreneurial orientation relates to the “how the strategy will be implemented” and the “motivation and attitude” behind the strategy.

In this study financial management practices were only related to one dimension of entrepreneurial success, namely client growth success ($\beta = .16, p < .05$). This finding challenges the cash flow-centred model of financial performance of an entrepreneurial firm (GEM, 2003), suggesting that strong financial administration within small businesses have been associated with increased potential for firm growth.

GEM studies (see GEM 2003, 2005 and 2010) have emphasised financial management practices as a core management area for entrepreneurs. In such studies financial management practices are constructed as specific strategies. More specifically, it is categorised into financial administration and documentation as well as the usage and application of this information for financial planning. Similarly, in my study I have constructed two sub variables, namely, basic financial management practices as well as advanced financial management practices. A third variable, financial management practices represent an overall indication of the extent of financial management practices and financial administration. In the GEM studies strong strategy operations result in strong financial management practices and strong usage of the information for financial planning. However, these studies do not adequately explain the reasoning or motivation behind strong or weak strategy operations. My study offers a contribution in this direction through psychological factors such as entrepreneurial orientation and strategy process characteristics, particularly through mediation and moderation.

5.3 ENTREPRENEURIAL ORIENTATION IS POSITIVELY RELATED TO ENTREPRENEURIAL SUCCESS

Previous studies have confirmed significant relationships between entrepreneurial orientation and performance in a Southern African context (Krauss, 2003). Krauss's (2003) construct of entrepreneurial orientation is distinctive compared to other studies, in that it is used as an individual-based psychological concept. Other studies have used entrepreneurial orientation in an organisational context and tested it on firm performance (Covin and Slevin, 1990; Lumpkin and Dess, 1996). In an organisational context, entrepreneurial orientation is used to differentiate firms in relation to firm performance, while a psychological orientation approach to entrepreneurship is relatively new and attempts to differentiate individual entrepreneurs in relation to success.

As psychological factors become more useful in entrepreneurship research more scholars are making contributions in this direction. Hence, Steinkellner et al's (2011) study is similar in that while it demonstrated that psychological factors such as entrepreneurial orientation were useful in improving innovation and intrapreneurship through management education programs, this study shows the usefulness of psychological factors in the formulation and implementation of financial management practices. Steinkellner et al's study is different in that the focus is on using psychological factors such as entrepreneurial orientation to improve intrapreneurship through executive management education. This is of significant value to large organisations that operate in very competitive and dynamic environments where management needs to be innovative in order to continually seek competitive advantages for the company.

This study draws on the work of Krauss (2003) and Frese (2000), using entrepreneurial orientation as an individual psychological concept in relation to success. The aim of the correlation test was to determine the initial strength of entrepreneurial orientation and its components to entrepreneurial success. Generally, most of the components as well as the combined variable, entrepreneurial orientation, were positively and significantly related to entrepreneurial success. My study is similar to Krauss's (2003) study in that similar sub-constructs are used as a basis for entrepreneurial orientation as well as the fact that both studies

attempt to differentiate individual entrepreneurs in relation to success. Krauss's study is different in that it examines entrepreneurial orientation to differentiate between successful entrepreneurs and less successful entrepreneurs in a longitudinal study. Krauss used three measures of success, namely, external success, increase in number of employees and business growth success. For the dependent variables business growth ($\Delta r^2 = .08$, $p < .05$) and external success evaluation ($\Delta r^2 = .31$, $p < .01$), the additional explained variance was significant. In my study five measures of success were used, namely, subjective success ($\Delta r^2 = .45$, $p < .01$), external success ($\Delta r^2 = .12$, $p < .01$), business growth success ($\Delta r^2 = .30$, $p < .01$), client growth success ($\Delta r^2 = .07$, $p < .01$) and entrepreneurial success ($\Delta r^2 = .01$, $p < .10$). While there are not many empirical studies that examine entrepreneurial orientation in relation to entrepreneurial success at the individual level, this study confirms previous studies where entrepreneurial orientation and its components were positively correlated to success (Krauss, 2003; Frese, 2000; Krauss et al., 2005).

Lumpkin and Dess (1996) define entrepreneurial orientation as "process, practices and decision-making activities" which have an impact on intentions and actions of key people within the firm. Other studies such as Callaghan and Venter (2011) have also used entrepreneurial orientation as a basis to understand entrepreneurial performance of informal traders in Johannesburg. The study is different from the focus in this thesis in that it links learning orientation to entrepreneurial orientation and in turn performance implying that training interventions could improve the performance of informal entrepreneurs. The study also looks at contextual factors that shape and influence innovation. The specific local entrepreneurial training course ($p < 0.0322$), years in Johannesburg ($p < 0.0746$), South African origin ($p < 0.0433$) and initial investment ($p < 0.0201$) were found to potentially positively shape innovativeness. Johannesburg origin ($p < 0.0287$), experience ($p < 0.01$), earnings ($p < 0.0054$) and continuance satisfaction ($p < 0.0728$) were found to potentially shape innovativeness negatively (Callaghan and Venter, 2011). My study is in line with studies conducted where entrepreneurial orientation was tested in an organisational as well as in an individual context and demonstrates the versatility of the construct. More specifically, this study relates directly to the individual psychological concept of entrepreneurial orientation and focuses on the actions of the entrepreneurs who ultimately determine the activities of the firm. Some scepticism has been raised by economists regarding the use of entrepreneurial orientation as a psychological

concept. However, the use of entrepreneurial orientation in Covin and Slevin (1986) is based on the work of Miller and Friesen (1982), which did extensive work doing psychological assessments of individual entrepreneurial orientation.

The psychological perspective is important as it relates directly to the actions and intentions of the entrepreneur in relation to the firm's strategies, actions and goals. From the psychological perspective, traditional entrepreneurship research has been dominated by trait-based theories, implying that entrepreneurial behaviour would be relatively stable over a period of time (McCrae, Costa, Ostendorf *et al.*, 2000). With the approach used in this study, the variables used are proximal to entrepreneurial behaviours that are not stable over time, implying that they can be changed and conditioned. This offers new insights into training interventions, particularly by practitioners, policy makers and educators (GEM, 2009).

When entrepreneurial orientation and its components were added to the independent variables 'financial management practices' and 'environment' (see Tables 4.24 to 4.28, Chapter 4), it explained an improvement in the models (growth success, size success and external success). Hence, the additive effect of entrepreneurial orientation indicates that the model is improved when a component of entrepreneurial orientation is added and contributes positively to the variance of the dependent variable.

The initial tests generally indicated positive correlation of entrepreneurial orientation and its components to entrepreneurial success, where entrepreneurial orientation was positively correlated to all the dimensions of entrepreneurial success (see Table 4.22, Chapter 4). This finding is important to the fields of entrepreneurship and strategic management as the dimensions of entrepreneurial orientation are central to understanding the entrepreneurial process, specifically in terms of the individual entrepreneur.

Lumpkin and Dess (1996) have shown that entrepreneurial orientation can be moderated, mediated or can interact with the environment to improve performance, particularly in volatile environments (Jantunen *et al.*, 2005). This study also shows full mediation and moderation effects of entrepreneurial orientation on the financial management practices-entrepreneurial success relationship. The interaction effects indicated that at high levels of entrepreneurial orientation, the relationship between financial management practices and entrepreneurial

success was positive. While some scholars suggest that start-up firms have a weak financial capital basis, lack of strategic marketing approaches and lower labour productivity, this study argues that higher levels of entrepreneurial orientation could influence the implementation of specific strategies such as financial management practices leading to higher performance.

5.4 STRATEGY PROCESS CHARACTERISTICS IS POSITIVELY RELATED TO ENTREPRENEURIAL SUCCESS

Hart and Barnbury (1994) suggest that strategy-making is an organisational phenomenon and focuses either on top management or middle management in relation to performance. Similar to the action templates in this thesis, Hart and Barnbury (1994) denotes multiple templates of strategy-making, namely, command, symbolic, rational, transactive and generative. Other similarities point to the fact that strategy-making has been shown to affect performance through the quality of the strategy rather than through improved implementation. Hart and Barnbury's study is different from this thesis study in that while they suggest combinations of the five modes or templates could co-exist at the same time the action templates in my study do not co-exist at the same time. The reason for this difference is primarily due to the fact that in large organisations the interaction between top management and other management levels are dynamic and complex whereas in a small business the entrepreneur could be goal directed or not resulting in specific action templates. Other differences point to the fact that action templates in a psychological sense is not the same as strategy templates in a strategic management sense as discussed by Hart and Barbury (1994). Another difference refers to the fact that it is possible for a company to either have a strategy or not. From a psychological perspective it is not possible for an entrepreneur not to have a strategy since entrepreneurial actions or strategies can be proactive, reactive, top down or sorting out the most important issues.

This study draws on the work of Hacker's Action Theory and Frese's Giessen-Amsterdam Model of Entrepreneurial Success, which strongly advocate the relationship between entrepreneurial actions and success as a critical part of the psychological approach in contemporary entrepreneurship research. In terms of the success model developed as a general

framework of entrepreneurial success, three dimensions of entrepreneurial actions and strategies are mentioned: strategy content, strategy process characteristics and entrepreneurial orientation. In previous studies it has been suggested that strategy content could include a wide range of business strategies but no empirical studies have been conducted to determine how strategy process characteristics and entrepreneurial orientation can influence strategy content in relation to success. Therefore financial management practices are defined as a type of content strategy in this study.

There are seventeen studies that have found a positive association between content strategy and business success by using Porter's (1980) generic strategies and success (Sandberg and Hofer, 1987). While Porter's work centred on how focused strategies outperformed broad strategies of small business, a number of studies found evidence to the contrary. Sandberg and Hofer (1987) found stronger support for a content strategy-success relationship in early stage entrepreneurial activity, where broader strategies are more effective than focused strategies. Similar studies suggest that broad strategies are more effective than focused strategies (Baumford, Dean and McDougall, 1997). However, in other studies involving strategy-success relationships it was found that successful entrepreneurs in the craft and clothing industries used differentiated strategies rather than focused strategies (Kean, Niemeyer and Miller, 1996).

Although a number of studies have been conducted in the area of strategy-success relationships, the results are inconclusive, particularly since most of such studies were conducted in an organisational context, often ignoring influential factors such as organisational culture and the degree of uncertainty. Some studies have indeed shown that strategy-success relationships can be moderated by organisational culture and newness of the firm (Brinckmann, Grichnik and Kapsa, 2010). This emphasises the point that strategy studied in an organisational context is complex and different to the situation of an entrepreneur who has significantly more influence and control in the business. Strategy in this case is perceived more loosely rather than a formal strategy that could often be documented in an organisational sense.

It is apparent that weaknesses exist in research on strategy-success relationships accompanied by limitations relating to business strategy categorizations (Rauch and Frese, 2000). In addition, while a number of such studies have been conducted in an organisational context, not many studies tested strategy-success relationships in an individual context. Furthermore,

studies that investigate strategy emphasize the importance of formal planning in relation to performance. A number of studies have been conducted that show no consistent relationship between planning and success. While Porter relates strategy to products, markets and competitors, Rauch and Frese (2000) suggest that strategy can also relate to aspects such as suppliers, customers and employees.

In this study, content strategy is related to financial management practices, which have been noted to be an important strategy for start-up micro and small business in South Africa to improve access to finance and better cash flow (see Fatoki and Akinwumi, 2010; and GEM, 2003). In this study, positive relationships have been found between complete planning-entrepreneurial success and critical point planning-entrepreneurial success. The initial correlation test provided an indication of the strength of the relationships between complete planning, critical point planning, opportunistic planning, reactive planning strategies and entrepreneurial success. Moderate associations were found between critical point-entrepreneurial success ($r = .37, p < .01$), complete planning-entrepreneurial success ($r = .36, p < .01$) and reactive planning-entrepreneurial success ($r = -.40, p < .01$). In Frese and Krauss's (2005) study they found a significant relationship between complete planning strategy and the number of employees ($r = .23, p < .10$) and business growth ($r = .33, p < .01$). Frese and Krauss's (2005) study represented a longitudinal approach where they studied reciprocal determinism between action strategies and success. In their study they confirm that entrepreneurs who showed an increase in success become more comprehensive planners while lower performing entrepreneurs became more reactive.

There was no significant relationship between opportunistic planning strategy and entrepreneurial success. The initial tests (such as the correlation) merely assessed the strength and direction of the relationship between the action templates and entrepreneurial success. The positive relationships between complete planning, critical point planning and entrepreneurial success and the negative relationship between reactive planning and entrepreneurial success are in line with similar studies conducted in Southern Africa (Frese, Brantjes and Hoorn, 2002; Krauss, 2003; Krauss, Frese, Keith, Escher, Unger, Friedrich and Heers, 2007).

The more sophisticated statistical analyses, such as hierarchical regression, were used to test for additive effects of the action templates on financial management practices-entrepreneurial

success over the control variables. The results of hierarchical regression indicated that strategy process characteristics had a significant impact on entrepreneurial success, which is in line with psychological action theory suggesting that active strategies operate independently of strategy content and have a positive impact on performance. This distinguishes my study from similar approaches (see Frese, 2000; Frese and Krauss, 2005) where it is demonstrated that active strategies such as strategy process characteristics are independent from content strategy (financial management practices).

In all the dimensions of success, more sophisticated planning strategies such as complete planning and critical point planning had a positive impact on entrepreneurial success. Complete planning strategy significantly explained the increased variance by 16% on entrepreneurial success, while critical point planning strategy significantly explained the increased variance by 27%. Reactive planning strategy explained the increased variance by 5% on size success and 16% on entrepreneurial success. These findings build onto the psychological process conceptualization of strategy and are generally in line with similar studies. These findings are also quite significant because it provides an indication of the level of sophistication of the entrepreneur in relation to the type of strategy being utilised. More importantly, the question as to whether appropriate interventions can be made to elevate individuals from less sophisticated strategies such as reactive and opportunistic strategies to more advanced strategies such as complete planning- and critical point planning strategies seem pertinent. To answer this question Gielniek's (2010) study also draws on a psychological approach and emphasised the need for entrepreneurs to be more creative, particularly since entrepreneurship in South Africa is characterized by a high rate of copying existing products or services and by a low propensity towards innovation and implementing new technologies. Furthermore, the point is emphasised by Krauss and Frese (2005) where less sophisticated strategies produce lower performance which in turn could maintain low propensities to be innovative and to implement new ways of doing things. Although Gielniek's (2010) study is similar to my approach, the focus is on cognitive capacities and active information search in relation to business opportunity identification. Secondly, the study shows that business opportunity identification is important to entrepreneurs for business growth. While the focus in this thesis study is on how strategy process characteristics could enhance the relationship between financial management practices and entrepreneurial success, business opportunity identification is important for an

entrepreneur to locate unique business opportunities in order to develop a higher propensity to be innovative and implement new technologies or financial management practices.

While in the previous section it was shown that entrepreneurial attitude (entrepreneurial orientation and components) is central to understanding the entrepreneurial process, the entrepreneurial actions and strategies (strategy process characteristics) represents a second dimension that is equally important to entrepreneurial success as it relates directly to planning.

MEDIATING EFFECTS

The purpose of this section is firstly to present further analysis of the mediating effects of strategy process characteristics on the relationship between financial management practices and entrepreneurial success. Secondly, it discusses the mediating effect of entrepreneurial orientation on the relationship between financial management practices and entrepreneurial success. Thirdly, it discusses the mediating effects of human capital on the relationship between financial management practices and entrepreneurial success.

5.5 MEDIATING EFFECTS OF HUMAN CAPITAL ON FINANCIAL MANAGEMENT PRACTICES-ENTREPRENEURIAL SUCCESS

Testing for mediating effects was aimed at identifying the underlying influences of confounding variables on the relationship between financial management practices and the sub-constructs (basic financial management practices and advanced financial management practices) and entrepreneurial success, and relates to H_{2a} , H_{2b} and H_{2c} .

Frese and Rauch (2000) suggest that there are numerous studies involving human capital and business success that have yielded small, significant, positive associations. Most studies relating to human capital-success have yielded positive results (e.g. Bosma, Acs, Autio, Coduras and Levie, 2008; Bruederl *et al.*, 1992; Cassar, 2006; Cooper and Gimeno-Gascon, 1994; Dyke, Fisher and Reuber, 1992; Van der Sluis, Van Praag and Van Witteloostuijn, 2005).

Some scholars suggest that the relationship between human capital and success is often overemphasised (Baum and Silverman, 2004). Other scholars have indicated that human capital continues to be a very important factor in the entrepreneurial process (Habe and Reichel, 2007). Some researchers suggest that human capital may have a significant impact on strategy content such as marketing and financial management strategies, and in turn impact on economic performance and profitability (Cooper and Gimeno-Gascon, 1992; Miller and Friesen, 1984).

The initial correlation tests in this study indicated no significant positive association between human capital and entrepreneurial success. It has been pointed out that possible reasons for such small values between human capital and entrepreneurial success in previous studies relate to the measure of human capital that is often a proxy measure of the number of years of schooling, years of working experience, years of management experience and the like (Breuderl *et al.*, 1992). Breuderl further points out that human capital does not directly measure the knowledge and specific skills needed to execute entrepreneurial tasks.

In this study, when examining mediating effects of human capital on the relationship between financial management practices and entrepreneurial success, mediating effects were found for the hypothesis, H2b. The significance of this finding is that although no consistency has been shown generally between human capital and entrepreneurial success, a mechanism exists that demonstrates how human capital mediated basic financial management practices and entrepreneurial success. This finding is in line with most studies focusing on human capital-success relationships and provides evidence that, although human capital is an important factor to consider as it relates to knowledge and skills that entrepreneurs need in order to operate a business successfully, and to learn from it, the results have generally been inconclusive as hypotheses H2a and H2c was not supported.

While a number of studies suggest that the relationship between human capital and success is inconclusive, particularly relating to the magnitude of the relationship, the purpose of this study was to examine the impact of human capital on specific types of strategies, such as financial management and entrepreneurial success. While Unger *et al.* (2009) suggest that previous knowledge and experience do not play an overarching role on success, other studies have indicated that previous knowledge plays a critical role in intellectual performance, as it assist

start-up entrepreneurs in acquiring new knowledge in relation to new and more challenging situations (Weick, 1996). Unger *et al.* (2009) argue that the relationship between human capital and success is higher when specific knowledge and skills are higher and related to specific tasks. The study conducted by Unger *et al.* (2009) also suggests that future studies should focus on moderating effects of human capital in order to overcome the static view of human capital. The lack of mediating effects found in this study in relation to advanced financial management practices and financial management practices suggest that longitudinal approaches should be used in future research and perhaps mediating effects of specific human capital (specialised knowledge) on other specific strategies should be examined.

5.6 MEDIATING EFFECTS OF STRATEGY PROCESS CHARACTERISTICS ON FINANCIAL MANAGEMENT PRACTICES-ENTREPRENEURIAL SUCCESS

Hypotheses 4b to 4e examined the mediating effects of specific entrepreneurial actions and strategies, namely, complete planning-, critical point planning-, opportunistic planning- and reactive planning strategies, on the financial management practices-entrepreneurial success relationship. Full mediating effects were found for complete planning, critical point planning and reactive planning strategy on the financial management practices-entrepreneurial success relationship.

This finding suggests that strategy process characteristics have a stronger relationship to performance variables than strategy content, such as the formal strategies suggested by Porter (1980). As shown in the previous section not only do strategy process characteristics have an additive effect on financial management practices-entrepreneurial success relationship but full mediation for the higher planning strategies such as complete planning- and critical point planning strategies. Strategy process characteristics offer new ways of interpreting how an entrepreneur goes about reaching a certain goal and can be regarded as a process approach in the interpretation of strategy of an entrepreneur. Therefore, this finding supports existing theory suggesting that strategy can be interpreted in the psychological sense, as opposed to the traditional interpretation in management literature.

The introduction and presentation of a cash flow-centred model of financial performance of an entrepreneurial firm (GEM, 2003) emphasized the importance of specific, strong financial management practices in order to improve access to finance, better cash flow stability and business growth. The cash flow-centred model of financial performance of an entrepreneurial firm takes into account the maintenance of documentation (basic financial management practices) as well as the extent to which this documentation is used for advanced financial planning (advanced financial management practices). However, the gaps in the cash flow centred model point to the lack of explaining strong or weak financial management practices. The mediation effect suggests that the level of sophistication of strategies influence performance and this may offer an explanation as to why an entrepreneur would employ a weak or strong financial management strategy. Furthermore, this finding provides evidence that content strategies such as financial management practices could have a better impact on entrepreneurial success if complemented by specific types of entrepreneurial strategies, such as strategy process characteristics.

It is argued that research has traditionally focused on strategies in an organisational context and its relationship to success, which can be regarded as one-sided (Hart and Barnbury, 1994). While the typologies identified by Hart and Barnbury (1994) have been specifically adapted for strategy-making in an organisational context where the focus is on how strategy-making occurs between management levels and translated into organisational activities, strategy process characteristics focus on entrepreneurial actions by the entrepreneur. Complete planning represents a broader view of the manner in which the entrepreneur executes actions in order to achieve goals within the business. Complete planning strategy involves high levels of proactive behaviour and planning. Therefore, it was hypothesised (H_{4b}) that complete planning strategy would mediate the financial management practices-entrepreneurial success relationship. In a longitudinal study it was found that complete planning strategy had a positive impact ($\beta = .41$, $p < .05$) on success at the second time interval (t_2) (Van Gelderen, 2000). In another study, complete planning strategy had a positive relationship to size success ($r = .65$, $p < .01$), subjective success ($r = .26$, $p < .05$) and growth success ($r = .19$, $p < .05$) (Frese, Brantjes and Hoorn, 2003). However, these findings examined direct relationships between strategy process characteristics and success in cross sectional or longitudinal studies. Since complete planning strategy represents the more sophisticated strategy this finding is significant in that this would

explain to what extent content strategies would be carried out. Complete planning strategy implies a more advanced type of strategy and this could imply that entrepreneurs not only maintain and implement basic financial management practices but also utilise this information for more sophisticated financial planning activities.

Hypothesis H_{4c} tested mediating effects of critical point planning strategy on financial management-entrepreneurial success. Full mediating effects were found for critical point planning strategy. In a previous study critical point planning strategy had a marginal impact on size success ($\Delta r^2 = .02$, $p < .01$) but did not have a significant impact on growth success and subjective success (Krauss, 2003). Critical point planning strategy also involves high proactive behaviour and planning but tends to focus on shorter term goals. In this strategy, the entrepreneur tends to focus on the main and most pressing issues before taking on other issues in the business. The most critical issues are resolved and this strategy is perceived as a main issue planning strategy. Similarly, critical point planning strategy is examined in relation to success in previous studies and research have shown that this strategy could be most useful to start-up entrepreneurs, particularly since the entrepreneur has to focus on many issues at the same time. However, the significance of the mediation effect implies that due to limited capacity of a start-up entrepreneur, the individual could focus on the most important issues in the case of financial management practices and still attain an acceptable success rate.

When examining mediating effects of low-level strategies on the relationship between financial management practices and entrepreneurial success, no mediating effect was found with opportunistic planning strategy and hypothesis H_{4d} was therefore not confirmed. In Krauss's (2003) study there were no significant findings for opportunistic planning strategy on success. In another study it is pointed out that opportunistic planning strategy was useful during the early stages of the business, such as identifying appropriate business opportunities (Van Gelderen, Frese and Thurik, 2000). Although no mediating effects were found for opportunistic strategy in this study further research could examine mediating effects of opportunistic strategies in longitudinal studies from business opportunity recognition through implementation of product or service innovation into business growth. Since opportunistic strategy implies a high level of proactiveness and an active scanning of the environment, it

should be a useful strategy for start-up businesses to identify new opportunities or established business looking to diversify into new areas.

Reactive planning strategy fully mediated the relationship between financial management practices and entrepreneurial success. Reactive planning strategy was found to be a significant negative impact on size success ($r = -.40, p < .01$) and subjective success ($r = -.23, p < .01$) (Frese, Brantjes and Hoorn, 2003). In a longitudinal study, reactive planning strategy had a significant negative impact on business growth ($\Delta r^2 = .05$) (Krauss, 2003). Reactive planning strategy represents the least effective strategy and does not entail a high level of planning and proactive behaviour. The important point to note here is that strategy content can be implemented using any of the action strategies with reactive strategy being the least preferred strategy. The significance of this finding is that although strategy content such as financial management practices forms a crucial part of the business, the use of reactive strategy points to a weak implementation of such financial management practices or other functional management strategies.

This finding is generally in line with previous findings that suggest reactive planning strategy to be the least preferred strategy and that entrepreneurs adopting this strategy face situational challenges without anticipating them. Start-up entrepreneurs face many challenges including limited access to finance, therefore it becomes essential for these entrepreneurs to at least use a complete planning- or critical point planning strategy to implement financial management practices in order to ensure better financial planning and monitoring of financial performance.

MODERATING EFFECTS

This section presents the analysis and interpretation of strategy process characteristics as a moderator on the relationship between financial management practices and entrepreneurial success. Cohen and Wills (1985) suggest that the main effects as well as moderating effects should be examined in order to avoid inaccurate interpretation of the relationship between the independent and the dependent variable.

5.7 MODERATING EFFECTS OF COMPLETE PLANNING STRATEGY ON FINANCIAL MANAGEMENT PRACTICES-ENTREPRENEURIAL SUCCESS RELATIONSHIP

When examining moderating effects of complete planning strategy on the relationship between financial management practices and entrepreneurial success, complete planning strategy moderated the relationship between financial management practices and entrepreneurial success as hypothesised. Complete planning represents the highest level of planning in action strategy theory and is characterized by very high levels of proactive behaviour, high levels of goal setting, broad top-down planning approach, well developed contingency plans and well developed knowledge. All these factors could contribute toward entrepreneurial success. The significance of hypothesis H5 is that higher levels of complete planning strategy results in higher performance through the implementation of more sophisticated financial management practices. In addition, lower levels of complete planning strategy have a positive effect on client growth and entrepreneurial success which could be very significant to start-up entrepreneurs, particularly since the entrepreneur is involved in many business activities during this stage and face severe time constraints. This finding in conjunction with hypothesis H4b suggest that such sophisticated strategies such as complete planning could add significant value to financial management practices and suggest that entrepreneurs using such strategies include more in-depth planning resulting in higher performance. Further research therefore points to examining moderation effects on other content strategies such as human resources, operations and marketing strategies etc. especially in very competitive environments.

As Robinson and Pearce (1984) have noted in earlier reviews in planning-success literature, many small firms do not plan at all and thereby increase the chance of business failure. As shown in Figure 19, high levels of complete planning strategy are more suitable, especially to advanced financial management practices that involve taking into account a wide range of financial information that is needed for financial planning. For example, variance analysis is an essential element in financial management, particularly in different scenarios in terms of historic cash flow projections. Entrepreneurs using this strategy would typically do an inventory turnover analysis as well as draw up financial statements concurrently.

5.8 MODERATING EFFECTS OF CRITICAL POINT PLANNING STRATEGY ON FINANCIAL MANAGEMENT PRACTICES-ENTREPRENEURIAL SUCCESS RELATIONSHIP

When examining moderating effects of critical point planning strategies on the relationship between financial management practices and entrepreneurial success, interaction effects were found to be significant. Critical point planning strategy is characterized by high proactive behaviour, a high level of goal setting, iterative planning, an established knowledge base and contingency planning. Iterative planning strategy relates to planning of the primary issues first before commencing with other issues. More importantly, moderation effects were significant on client growth success, sales growth success and entrepreneurial success for high and low levels of critical point planning strategy. This finding is very significant and is a distinguishing feature compared to similar studies using psychological predictors of entrepreneurial success. In other studies (see Krauss 2003, Frese and Krauss 2005, Gielniek 2010) strategy process characteristics are shown to have strong influence on entrepreneurial success, particularly for businesses older than one year. However, this finding suggests that critical point planning strategy could be a more appropriate strategy at early developmental stages of business growth since the entrepreneur focuses on the issues of priority rather than a comprehensive range of issues.

A key factor within critical point planning strategy is proactiveness. Miles and Snow (1978) have shown that start-up entrepreneurs with high levels of proactiveness have not only been able to identify and to exploit market opportunities more effectively than entrepreneurs with low proactive behaviour, but also were able to introduce new products and services into the market. While opportunistic strategy entails a high degree of proactive behaviour the strategy is associated with a lack of focus and structured planning as opposed to critical point planning strategy which is also associated with a high degree of proactive behaviour with the exception of a greater emphasis on actual planning.

Entrepreneurs using higher levels of critical point planning strategy should be more successful with financial management practices, particularly when dealing with basic book-keeping, inventory management and maintaining other relevant source documents, as well as more advanced applications of financial management practices. This strategy could be useful when

the entrepreneur introduces a new pricing strategy or when developing a three-year cash flow projection. Entrepreneurs using this strategy will focus on other issues in the business once the pricing strategy and the cash flow projection are completed. Lower levels of critical point strategy are less successful as this strategy involves main issue planning and could exclude other important issues. This can be relevant to entrepreneurs as the business develops and passes through various stages, strategies should become more advanced as a result of an increase in the number of business activities.

5.9 MODERATING EFFECTS OF OPPORTUNISTIC PLANNING AND REACTIVE PLANNING STRATEGY ON FINANCIAL MANAGEMENT PRACTICES-ENTREPRENEURIAL SUCCESS RELATIONSHIP

No moderating effects were found for opportunistic planning strategy. Although no moderation effects were found for opportunistic strategy, this strategy is useful to scan the environment for new opportunities. However, scanning the environment and having high levels of proactiveness does not ensure entrepreneurial success. Opportunities must be developed and action strategies should be put into place. This strategy could be of more relevance at a later stage of business development when the business has a more formalised structure. In this case the entrepreneur would have defined functional management roles and more attention could be spent on scanning the environment. When examining moderating effects of reactive planning strategies on the relationship between financial management practices and entrepreneurial success, the interactive effect was statistically significant. Reactive planning strategies represent low-level entrepreneurial strategies and are characterised by little or no planning, no clear goal setting, very low proactiveness, no back-up plans and a high level of situational responsiveness. Figure 25 in Chapter 4 illustrates that higher levels of reactive planning strategy result in lower success and decreasing levels of financial management practices. Entrepreneurs with lower levels of reactive planning strategy and higher levels of financial management practices should be more successful than entrepreneurs with high levels of reactive planning strategy and lower levels of financial management practices.

5.10 MODERATING EFFECTS OF ENTREPRENEURIAL ORIENTATION ON FINANCIAL MANAGEMENT PRACTICES-ENTREPRENEURIAL SUCCESS RELATIONSHIP

Studies that have focused on entrepreneurial orientation at the firm level have found linkages with a variety of variables. For example studies have linked entrepreneurial orientation to organisational strategy, structure and culture (Goosen, Coning and Smit, 2002; Nayager and Van Vuuren, 2005). Furthermore, research has shown that a firm's market orientation on firm performance is highest when entrepreneurial orientation is at a moderate level (Bhuian, Menguc and Bell, 2005).

This study has focused on shifting the emphasis from a firm-level entrepreneurial orientation to a psychological construct where the individual-based entrepreneurial orientation was found to impact on the financial management practices-client growth success and financial management practices-entrepreneurial success relationships.

In Wicklund and Shepherd's (2005) study, high entrepreneurial orientation provided businesses with the ability to exploit new opportunities that could lead to competitive advantages. They also found that access to capital influences the entrepreneurial orientation-performance relationship. When access to capital is in abundance and the environment is dynamic (by implication, highly turbulent), then performance has been found to be enhanced by high levels of entrepreneurial orientation (Wicklund and Shepherd, 2005). In dynamic environments, demand tends to vary due to the unpredictability of customers and competitors. Therefore, in these environments, it could become important for entrepreneurs to constantly seek and pursue opportunities.

Wicklund and Shepherd (2005) found that the alignment and re-alignment of entrepreneurial orientation and the dynamic environment had a positive impact on performance. Wicklund and Shepherd also postulated that entrepreneurs who became content with the existing operations were less likely to benefit in a dynamic environment. Wicklund and Shepherd's study was inconclusive and suggest that entrepreneurial orientation as a predictor of success through contextual factors provides an incomplete understanding of performance. They suggest that a better explanation can be found by a concomitant consideration where business performance

can be determined by access to finance and entrepreneurial orientation. In my study this finding demonstrated that entrepreneurial success is determined by financial management practices and entrepreneurial orientation. Interestingly in other studies it was shown that financial management practices improved the entrepreneur's chances to access finance (see GEM 2003, 2005 and 2010). Although not part of the focus of this thesis study, future research could examine a configurational approach involving financial management practices, access to finance, entrepreneurial orientation and entrepreneurial success. This study confirms that entrepreneurs with high levels of entrepreneurial orientation moderate the financial management practices-entrepreneurial success relationship where entrepreneurial success represented overall success. The significance of this finding also suggests that the entrepreneur's ability to make greater use of financial information for advanced financial planning is significantly improved. This study provides insight into the relationship between the individual's entrepreneurial orientation and entrepreneurial success.

In summary, this study suggests that strategy process characteristics have a stronger relationship to performance variables than strategy content such as the formal strategies suggested by Porter (1980). In this study formal strategies were represented by financial management practices implemented by the entrepreneur. Personal strategies offer new ways of interpreting how an entrepreneur goes about reaching a certain goal and can be regarded as a process approach in relation to entrepreneurial actions.

Mediation effects were found for high-level planning strategies (complete planning and critical point planning), as well as for low-level planning strategies (reactive planning) on the financial management practices-entrepreneurial success relationship. For high-level planning strategies, this finding suggests that neither the strategies nor the financial management practices determine success alone. Rather, this study suggests that it is their co-alignment that drives success. With respect to the theory the findings are consistent with the conceptual work suggesting that action strategies have a strong relationship to success.

Moderation effects were found for complete planning strategies on the financial management practices-entrepreneurial success relationship. This finding suggests that high levels of complete planning strategy have a positive effect on the financial management practices-entrepreneurial success relationship. For example, complete planning strategy is a useful

strategy in order to ensure that a wider range of financial management practices is implemented. This finding suggests that high-level planning strategies could be a fundamental tool for facilitating budgeting and financial management in a start-up enterprise. The basic principles and process of complete planning strategy underlie effective approaches to cash flow management in start-up enterprises.

On the other hand, moderating effects were also found for low-level planning strategies such as reactive planning strategy. This finding suggests that high levels of reactive planning strategies could negatively impact on the financial management practices-entrepreneurial success relationship. Reactive planning strategy is the least preferred strategy and previous studies showed a negative impact on success (Hiemstra *et al.*, 2006).

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CHAPTER 6: CONTRIBUTIONS, IMPLICATIONS FOR ENTREPRENEURSHIP PRACTICE, LIMITATIONS AND FUTURE RESEARCH

This chapter discusses the significance of the findings in conjunction with conceptual and empirical contributions. Implications for entrepreneurs as well as entrepreneurship education are considered. Finally, the limitations of the study and the way forward are discussed.

KEY CONTRIBUTIONS OF THIS STUDY

While most planning-performance studies in entrepreneurship have focused on firm level approaches, this study attempts to explain success from the individual entrepreneur's perspective. A key contribution of this study is that it shows that action strategies such as entrepreneurial orientation and strategy process characteristics can enhance specific management strategies, such as financial management for start-up entrepreneurs, by examining planning from an action-oriented perspective as opposed to formal planning.

Previous research indicated the importance of planning sophistication-performance relationships in developing economies (Yusuf and Saffu, 2005). Their findings suggest that the quality of management practices impacted on performance and growth in large and small businesses. They suggest that in an organisational context the quality of management practices impacts on the organisation's ability to be competitive. However, these practices are initiated by the owner and communicated hierarchically. Although these findings are more applicable in established businesses the significance of the influence of the owner is essential in both contexts. In established organisations the flow of communication is more hierarchical while in a start-up business the flow of communication is more lateral. While both variables indicate positive associations with entrepreneurial success, entrepreneurs implementing action strategies such as top-down planning strategies were more successful than entrepreneurs with bottom-up planning strategies. Top-down strategies, such as complete planning and critical point planning strategies, were found to impact positively on the level of financial management practices implemented in the business.

Conversely, entrepreneurs using bottom-up strategies such as reactive planning strategies were less successful and implemented fewer measures relating to financial management practices. Therefore, by examining mediating and moderating effects of action strategies, a better understanding of entrepreneurial success emerges since higher level strategies such as complete planning- and critical point planning strategies improved the quality of financial management practices discussed in the study. This finding presents a significant contribution to planning-performance studies at the individual level.

The study also shows the significance of a second dimension of action strategies, namely entrepreneurial orientation, and its impact on the level of financial management practices implemented in the business by the entrepreneur.

Although entrepreneurial orientation has been studied extensively in firm level studies (for example Covin and Slevin, 1989; Miller, 1983; Venkataraman, 1989; Wiklund, 1998; Zahra, 1991), hardly any research exists where entrepreneurial orientation has been examined on a specific management strategy and entrepreneurial success of start-up entrepreneurs. Most of the entrepreneurial orientation studies conducted at the firm level tend to focus on established firms employing more than fifty employees where the influence of the owner has been reduced significantly as the organisational culture and structure became more complex (Krauss *et al.*, 2005).

The results of this dissertation challenge the theoretical perspectives of Gartner (1989) and Low *et al.* (1988), who argue that individual approaches to entrepreneurship are unspecific and of little explanatory value for determining entrepreneurial behaviour. In addition, the study challenges the perspectives of Allinson *et al.* (2000) and Baker *et al.* (2003), who suggest that too much planning is ineffective and makes people reluctant to adapt. 'Planning' in this study does not refer to formal plans such as written business plans. Instead, planning in this context relates to plans in the entrepreneur's mind.

This study shows that planning in entrepreneurship could also be seen as a multi-faceted phenomenon. In most approaches involving planning-performance studies the focus tends to be on formal planning which is based on the principals of strategic management. In established organisations it is possible for the organisation to either have a strategy or not. However, in

start-up businesses it is not possible for an entrepreneur not to have a strategy in the psychological sense. From a psychological viewpoint the entrepreneur is constantly in contact with feelings and emotions which play an integral role in the formation of action strategies. Furthermore, this study contributes empirical evidence to support emerging conceptual discussions by Frese and Krauss (2005) as well as Wang and Wong (2004) relating to the use of psychological predictors such as strategy process characteristics and entrepreneurial orientation on success for start-up entrepreneurs. Therefore, this work brings to the fore the degree to which action strategies can influence the extent of formulation of financial management practices which could impact on entrepreneurial success of start-up entrepreneurs.

This study also builds on the work of Brickmann *et al.* (2010), suggesting that context variables such as newness of the firm and nature of business planning moderate planning-performance relationships with the overall aim of uncovering empirical evidence relating to contexts when planning sophistication shows increased effectiveness. Brickmann *et al.*'s (2010) study further suggests that planning leads to perseverance, however, perseverance in isolation could be a poor measure of entrepreneurial success – the business could very well be on route to failure irrespective of perseverance on the part of the entrepreneur. Furthermore, they also suggest that business plans may be unrelated to entrepreneurial success in the case of start-up businesses – the reason for this could essentially be that the entrepreneur is not actively involved at the outset in the design of the business plan, which is normally done by a business consultant. Brickmann *et al.*'s (2010) study suggests that business planning has a greater impact on the performance of established firms that are older than eight years – the level of maturity of the entrepreneur and how well he or she has established themselves in the market at this stage has a definite impact on the level of confidence with which he or she is able to draw up new plans. Again, this demonstrates the extent to which prior research has positioned planning in the formal sense in relation to entrepreneurial success which fails to contribute toward the understanding of entrepreneurial actions in the psychological sense. The contribution in my study suggests that although the entrepreneur always has a strategy in place, the type of strategy can offer insight into performance in the entrepreneurial process toward success.

While researchers have often found clear, albeit small, significant relationships between psychological factors and success, these small correlations and large variations between the

various studies suggest that moderators and mediators should be used in future research involving psychological predictors (see Rauch and Frese, 2000). It is suggested that factors such as business growth, lifestyle goals and culture be studied as moderators and mediators in such studies. However, it is strongly emphasised in the literature that financial management practices are crucial to ensuring success for start-up small businesses. In addition, it is also widely argued that access to finance continues to be a major stumbling block for start-up entrepreneurs.

Access to training in financial management is readily available and a number of programmes are offered to start-up entrepreneurs. However, these are often referred to as business management or content strategy as suggested by Frese and Krauss (2005) and fail to include entrepreneurial skills (such as entrepreneurial orientation and strategy process characteristics) as critical components of training programmes. Disenfranchised communities particularly require substantial entrepreneurial skills and abilities to stimulate business start-ups.

It has also been pointed out by Frese and Krauss (2005) that future studies should focus on the relationships between strategy process characteristics (action planning), entrepreneurial orientation (attitude) and content strategy (formal strategies). Therefore, this study examined the mediating and moderating effects of action strategies on the relationship between financial management practices and entrepreneurial success.

Through a comprehensive examination of the role of action strategies, this study contributes to the development of the psychological approach and, in particular, psychological predictors (strategy process characteristics and entrepreneurial orientation) on content strategy (financial management) towards entrepreneurial success.

6.1 CONTRIBUTIONS TO THEORY AND RELATED EMPIRICAL LITERATURE

From a conceptual perspective, this study has developed hypotheses from the literature concerning action strategy theory and drew extensively on the work of Hacker (1994) and Frese (2000), which marked a new way of understanding entrepreneurial success with psychological predictors. The study contributes to the following theoretical perspectives:

financial management practices, human capital theory, action strategy theory and related conceptual and empirical literature.

Financial management practices is concerned with the administration and financial health of start-up businesses in a South African context and suggests better access to finance and cash flow if simple practices and procedures are implemented. This suggests that two aspects concerned include maintenance of basic financial administration and management practices, and further application of this information to ensure better and more effective financial planning (such as budgeting and cash flow forecasting).

Human capital theory has been found to be very important to small businesses although it lacks elaborate theory on the mechanisms and contingencies leading to success (Rauch and Frese, 2000). However, recently it was found in human capital theory that different types of general human capital was associated with innovation which in turn impacted on success (Unger *et al.*, 2010). In addition, human capital is vital when the entrepreneur is operating in very complex environments, as this enables the entrepreneur to successfully find positive solutions which may be encountered in more complicated and diverse business situations.

Action strategy theory is concerned with goals and entrepreneurial actions and their impact on success. Action goals are closely associated with goals relating to desired targets within a certain time frame while action plans determine the order in which this is achieved. Difficult goals produce better performances than easier goals (Locke and Latham, 1990).

On the other hand, greater detail in action plans, such as proactive top-down approaches (complete planning and critical point planning), have been found to lead to greater success than reactive, non-planning approaches (reactive planning).

6.1.1 CONTRIBUTIONS TO FINANCIAL MANAGEMENT PRACTICES

Financial management practices concerns the administration and financial health of start-up entrepreneurs and how the implementation of simple administrative measures can lead to greater accessibility to finance and a more stable cash flow position (GEM, 2003). It is commonly accepted that the use of appropriate financial management practices will ensure

better cash flow management, and hence impact positively on financial performance, particularly of a start-up business.

While this conceptual framework is centred on reducing the probability of the firm running out of cash, this study has introduced two elements, namely, basic financial management and advanced financial management, and the probability of ensuring more effective planning and consequently a higher level of success.

The above relates to the implementation of measures within basic financial administration which have been found to reduce the probability of a start-up firm running into cash flow difficulties. This study has also contributed to this conceptual framework by introducing a second component relating to more advanced financial management practices such as the formulation of financial budgets, cash flow management (variance analysis), pricing and cash flow projection.

While it is acknowledged that financial documentation is not an end in itself, it facilitates and enables best practice in financial management that can lead to better ways of improving cash flow and financial planning (GEM, 2003). Brickmann *et al.* (2010) support the theory that business planning does impact on firm performance. This suggests two distinct conceptual schools of thought. One school of thought focuses on formal outcomes of formal planning (for example, written business plans, financial goals) while another school of thought analyses how business processes impact on firm performance.

Other scholars suggest that a national culture impacts significantly on planning-performance relationships, hence different contexts and environments impact on business planning (Frese and Rauch, 2007).

This study relates to entrepreneurial actions and strategies and relates to processes of business planning. It contributes to growing entrepreneurship literature that understands business planning as a multi-faceted phenomenon.

While planning scholars such as Porter (1985), Armstrong (1982) and Ansoff (1965) focus on the key components of planning (for example strategic goals, alternatives to reach these goals, evaluation of these alternatives and control); Sandberg and Hofer (1987) found significant

relationships between generic strategies and success, albeit in a small sample. Thus in contrast to action planning and action strategies, content strategies are specific type of strategies and their association with firm success has been supported in the literature. However, a lack of empirical evidence suggests that this relationship is inconsistent. This view is largely supported by Frese and Zaph (1994), Van Gelderen *et al.* (2000) and Kahneman (1973) who argue that empirical evidence supports action planning-success relationships.

This study has contributed to emerging literature that emphasises the perspective that outcomes business planning theory and process business planning are equally important as they offer deeper insight into understanding the mechanics of business and enable continuous learning.

A methodological contribution of this study relates to the measure introduced to determine the extent to which the entrepreneur is implementing advanced financial management practices. This represents an improvement on the measures introduced by GEM (2003), where the focus was on measuring two elements, namely: the extent of basic financial management practices such as maintaining a cash book, inventory control, performing debtor and creditor management; and, the extent to which this information was used in order to ensure more effective financial planning which impacted on business growth.

This study is more specific with regards to measuring financial management practices at the individual level and determining the impact on individual-based success.

6.1.2 CONTRIBUTIONS TO HUMAN CAPITAL THEORY

Human capital theory is concerned with the relationship between the human capital of entrepreneurs and success. Human capital theory maintains that knowledge provides individuals with increased cognitive abilities which can lead to more productive activities (Schultz, 1959; Becker, 1964). Human capital also allows the entrepreneur to formulate better goals and entrepreneurial strategies. Human capital is also a moderator of entrepreneurial strategies and environmental conditions (Rauch and Frese, 2000).

This study contributed to human capital theory by examining the mediating effects of human capital on the relationship between financial management practices and entrepreneurial

success. The significant relationship between human capital and basic financial management practices places human capital as the mediating factor in relation to basic financial management practices and entrepreneurial success. Human capital is important when entrepreneurs need to perform difficult and complex tasks. Specific functions such as budgeting, cash flow projections and other aspects of financial planning are knowledge-specific and ought to be associated with formal learning. It should be borne in mind that human capital is used as a general proxy measure of the individual's overall experience and knowledge. This suggests that for the business in the start-up phase human capital as a basic influencing factor provides a mechanism for understanding the relationship between basic financial management practices and entrepreneurial success. On the contrary, advanced financial management practices have a stronger relationship with entrepreneurial success due to the higher degree of specialisation.

While no moderation effects were supported in this study, other studies based on large/more formalised organisations have found that human capital moderated the relationship between strategic choice and firm performance (Finkelstein and Hambrick, 1996). This perspective is supported by views that suggest that managers in firms represent a unique organisational resource (Daily, Certo and Dalton, 2000). Hitt, Harrison and Ireland (2001) further points out that human capital explains significant variance in firm performance. This perspective suggests that resources such as human capital could be a unique and valuable resource which often leads to competitive advantage on a larger scale. It has been pointed out by Peteraf (1993) that these competitive advantages could produce positive returns. Overall, many studies have been conducted examining human capital-success relationships. However, the findings were inconclusive. Notwithstanding these findings, it is imperative that human capital be explored more thoroughly in future studies in relation to mediation and moderation approaches involving longitudinal research designs.

6.1.3 CONTRIBUTIONS TO ACTION STRATEGY THEORY

The contribution of action strategy theory in this study relates to the unique contribution of strategy process characteristics which relate to the relationship between the individual action templates such as complete planning, critical point planning, opportunistic planning and reactive planning strategies and entrepreneurial success. The study also relates to the unique

contribution of the second dimension, entrepreneurial orientation and its components, to entrepreneurial success.

6.1.3.1 STRATEGY PROCESS CHARACTERISTICS

This study is supportive of a growing body of literature that draws on Hacker's Action Theory and Frese's Action Strategy theory, where entrepreneurial strategies and actions are used to predict success. Prior research and theory in strategy literature suggests that strategy in entrepreneurship relates to the type of business or sector the entrepreneur intends to enter.

However, this perspective has developed as the field of strategic management has developed, where the emphasis on strategy in entrepreneurship has shifted to methods, practices and decision-making styles that entrepreneurs utilise (Lumpkin and Dess, 1996). In terms of this approach, strategy is viewed and is introduced as a psychological concept, rather than a formal concept as suggested in management literature.

While most studies in entrepreneurship tends to focus at the firm level (for example, entrepreneurial orientation-firm performance studies and planning-firm performance studies), few studies focus at the individual level. Entrepreneurship concerns the study of small firms. However, when looking at micro and small firms, the low number of employees involved often results in the entrepreneur having a substantial influence in terms of the firm culture and practices. Many firm-related studies often do not look at the impact of the entrepreneur on the success of the firm.

This study has contributed to the field of entrepreneurship by examining the impact of entrepreneurial actions and strategies on the relationship between content specific strategies such as financial management practices and entrepreneurial success. The findings of this study suggest that higher level planning strategies, such as complete planning and critical point planning strategies, enable the entrepreneur to employ more advanced strategies and practices associated with financial management practices, compared to lower level planning strategies such as opportunistic planning strategies and reactive strategies, and attain higher levels of success.

Similar studies suggest that more sophisticated forms of planning have resulted in mixed results (Yusuf and Saffu, 2005). Yusuf and Saffu's (2005) study found that firms with increased sales employed less sophisticated planning mechanisms. However, it must be borne in mind that planning in this context relates to formal planning and specific types of management strategies such as long-range formal written plans. In planning-performance studies, other scholars found no significant relationship between planning-performance relationships (Berman, Gordon and Sussman, 1997).

On the other hand, significant correlation between planning and firm success have been found by some researchers (Rue and Ibrahim, 1998; Mintzberg, 1973; Robinson *et al.*, 1984). It has been suggested that the inconclusive results in planning-performance relationships could be attributed to the content of the plan and the sophistication of the planning process (Yusuf and Saffu, 2005).

Recent research has tested more sophisticated planning and better developed content such as financial management practices, particularly in start-up firms, and found that more sophisticated strategies in this area have resulted in greater cash flow stability and greater accessibility to finance (GEM, 2003).

This study found a small positive relationship between financial management practices and entrepreneurial success. More sophisticated statistical analyses have indicated significant mediation and moderation effects of entrepreneurial planning strategies on the relationship of financial management practices-entrepreneurial success.

This study also suggests that entrepreneurs should at least employ a critical point planning strategy, implying a more focussed strategy where the entrepreneur focuses on main issues before tackling a wider range of business issues. This is in line with similar studies such as Sandberg and Hofer (1987), who suggest that broader strategies are more effective than focused strategies at the start-up phase of a new business.

Other studies found that entrepreneurs operating in the craft industries who employed broader strategies were more successful than entrepreneurs using focused strategies at the start-up phase (Kean, Niemeyer and Miller, 1996). This perspective is significantly different from

Porter's (1980) theory that suggests that focused strategies were more effective than broader strategies.

The construction of broader strategies used in this study puts into context the value of action strategy theory and the usefulness of financial management practices as a specific type of strategy in testing strategy-success relationships. Broader strategies are similar to complete planning strategies and focused strategies are represented by financial management practices examined in this study. Furthermore, the findings suggest that entrepreneurs should refrain from employing a reactive planning strategy which implies no proactive behaviour, low goal setting and no planning.

The use and construction of action templates in this study, such as complete planning, critical point, opportunistic planning and reactive planning strategy, builds on the work of Miles and Snow (1978), who distinguished four different strategic orientations: prospectors, defenders, analysers and reactors. While analysers exhibit high levels of proactive behaviour and planning, reactors do not follow similar patterns. Miles and Snow (1978) suggest that analysers tend to outperform reactors on the basis of higher planning and proactive behaviour. Further, these typologies were examined with managers in an organisational context and not in an entrepreneurial setting. Although Zahra and Pearce (1990) questioned the validity of the typologies and the type of typology-performance relationship, Mintzberg's (1983) theory established similar findings and similar findings were found later (see Varadarajan, 1996; and Doty, Glick and Huber, 1993).

This study also builds on the work of Frese and Krauss (2005) and the contribution of action strategy theory to entrepreneurial success. While Frese and Krauss (2005), Frese (2000), Gielniek (2010) and Krauss (2003) have contributed significantly to entrepreneurship research. However, the nature of entrepreneurship is dynamic and therefore new contributions are needed. Contemporary research involving psychological approaches have examined the relationship between action strategies and entrepreneurial success in cross-sectional and longitudinal research design studies and have found consistent and significant results. There is a consensus from this group of researchers that it is difficult to understand entrepreneurship detached from the individual characteristics of the people who initiate and proceed through the

entrepreneurial process. Therefore, the introduction of psychological predictors in entrepreneurship research is a new area of research.

Controversy in entrepreneurship research exists, where some scholars suggest that too much planning does not pay off (Allinson, Chell and Hayes, 2000; and Baker, Miner and Eesley, 2003). However, planning strategies such as the action templates (action strategies) do not relate to formal planning compared to financial management practices. In contrast, the action plans refer to the plans that are in the mind of the entrepreneur and not the results of a formal decision-making process. These plans are not formal plans in the firm, but issues that the entrepreneur deals with in relation to goals that are pursued. Porter (1980) argued that research involving strategy content lacked sophisticated classification. He points out that strategy in this context can relate to suppliers, markets, employees and customers. From the discussion it is apparent that new enquiries are needed to arrive at a more balanced perspective. Although formal planning is essential for entrepreneurial success and sustainable growth, psychological factors such as action planning is vital to understand the entrepreneurial process.

The use of financial management practices in this study represents an all-encompassing factor that relates to most of the issues mentioned above as these practices included such areas as pricing, financial planning, budgeting and maintaining records and documents. However, it has been shown in this study that financial management practices relate to entrepreneurial success through action strategies. While content strategies are vital to ensure the successful operation of a start-up business, particularly during the early stages, the formulation and implementation of such plans and strategies are determined by action strategies. It must be emphasised that content strategies such as financial management practices cannot be viewed in isolation in relation to entrepreneurial success.

6.1.3.2 ENTREPRENEURIAL ORIENTATION

Scholars have indicated that direct effects exist between entrepreneurial orientation and performance in an organisational context (Lumpkin and Dess, 1996). Researchers and scholars have indicated that entrepreneurial orientation is an essential feature in high performing firms (Covin and Slevin, 1991). Recent trends in strategic management literature clearly distinguish

between content and process regarding entrepreneurship. However, the shift in the literature moved from a content-based perspective, which focused on “What type of industry to enter?” to entrepreneurial methods, practices and decision-making styles.

Components used in entrepreneurial orientation literature relate to innovation, autonomy, risk-taking, proactiveness and competitiveness aggressiveness. Although most of the research discussing entrepreneurial orientation tested the concept in an organisational context in relation to firm performance, other studies applied it in entrepreneurship in relation to new firm entry (Lumpkin and Dess, 1996). Entrepreneurial orientation studies became more widely used and scholars examined the impact of networking strategies on the relationship between entrepreneurial orientation and the firm (Stam and Elfring, 2006). Stam and Elfring’s (2006) study supports a contingency perspective, implying a different view on how entrepreneurial orientation affects firm performance.

New insights have been generated which show how firms that differ in terms of strong or weak entrepreneurial orientation organise their businesses differently in order to achieve a competitive advantage. Scholars have also provided evidence to support perspectives where firms with strong entrepreneurial orientation build different social networks and combine them with opportunities to maximise wealth creation (Ireland *et al.*, 2001).

This study has indicated the importance of using entrepreneurial orientation as a mediator and moderator in relation to success at the entrepreneur’s level of analysis. Similar studies have moved from using entrepreneurial orientation at the firm level to a psychological construct, where entrepreneurial orientation and its components are used as predictors of entrepreneurial success. This study has advanced the application of entrepreneurial orientation and its components, namely, innovation, learning orientation, achievement, autonomy, personal initiative and risk-taking, with mediating effects and moderating effects on the relationship between financial management practices and entrepreneurial success. The study tested the relationship between entrepreneurial orientation and its components on entrepreneurial success.

This study builds onto previous models and provides new insights into small business owners’ individual entrepreneurial orientations and entrepreneurial success. The results indicate that entrepreneurial orientation and most of the components were positively related to

entrepreneurial success. The most important components for entrepreneurial success were innovation, personal initiative, achievement and learning orientation. This confirms previous findings where individual personal initiative was correlated to business success in Europe, East Africa and Southern Africa (Frank, Lueger and Korunka, 2003).

The study found that autonomy and risk-taking were not correlated to entrepreneurial success. This is in line with previous studies that pointed out that the components of entrepreneurial orientation may vary in any given context (see Lumpkin and Dess, 1996). Risk-taking was not correlated with entrepreneurial success and this in line with previous studies that yielded inconsistent findings (Rauch and Frese, 2000; Venkataraman, 1989).

Innovation was positively correlated to entrepreneurial success. As there are numerous ways to distinguish between types of innovation, this study based the classification of innovativeness on previous studies and distinguished between product-market innovation and technological innovation. While the focus in this study is on start-up businesses and access to finance is regarded as a major challenge, product-market innovation was used as the primary measure of innovation.

Learning orientation was also positively correlated to entrepreneurial success. Learning orientation is an important measure of the ability of the entrepreneur to learn from positive and negative experiences. Learning also implies developing more sophisticated mental models, particularly as entrepreneurs enter unexplored areas and need to make effective decisions. Recent research in entrepreneurial orientation found that firms that adopt a culture of learning are more effective than firms without such cultures (Sonnetag, Van Dyck, Frese and Baer, 2003).

The study also emphasises the importance of personal initiative as a factor where the entrepreneur attempts to influence the environment. This point is also emphasised in the literature where the entrepreneur needs to attempt new combinations despite setbacks (Schumpeter, 1934). Achievement orientation is also an important component of entrepreneurial orientation and emphasises the high need of entrepreneurs to achieve. In this process entrepreneurs set challenging goals and seek feedback in order to compare themselves to others (McClelland, 1961).

The psychological concept of entrepreneurial orientation employed in this study is in line with the Schumpeterian understanding of entrepreneurship and reinforces the understanding of current studies involving individual entrepreneurial orientation and its components. This study builds onto previous studies of the application and use of entrepreneurial orientation as a single-factor construct. This study has shown through factor analysis that the idea of a one-factor entrepreneurial orientation construct and its components, namely, innovation, learning orientation, achievement, risk-taking, autonomy and personal initiative, was supported. While the concept of entrepreneurial orientation was essentially developed in Western cultures and for Western business communities, formal South African businesses tend to approximate business standards that are close to those in a Western context.

This study has contributed to entrepreneurial orientation theory by testing mediating and moderating effects on the relationship between financial management practices and entrepreneurial success on start-up enterprises in a South African context. The foregoing work and its findings in relation to studies done by Krauss (2003), Frese (2000), Krauss and Frese (2005), Frese and Rauch (2004) and Gielniek (2010) effectively represent a furthering and perpetuation of psychological approaches in contemporary entrepreneurship research.

6.2 IMPLICATIONS FOR ENTREPRENEURSHIP PRACTICE

This study has implications for mentors/ coaches, bankers and business consultants. Financiers and bankers usually receive business plans for financing a new start-up business which have been prepared by business consultants and entrepreneurs. Business plans could be enhanced through more elaborative and proactive planning. Poorly developed business plans could be re-aligned to relevant parameters of success as demonstrated in this study.

Entrepreneurs with moderate to high levels of entrepreneurial orientation are more in tune with the anticipation of daily tasks and the environment. Ideally, the level at which an entrepreneur is able to apply his or her entrepreneurial orientation should be a clear indication of his or her ability to follow through on an entrepreneurial endeavour – this would serve as a benchmark to a banker/financial institution official regarding the entrepreneur's ability to succeed in a particular business venture. It is expected that entrepreneurs with higher levels of

entrepreneurial orientation would be considering implementing more advanced financial management practices or would have a clear idea of how they would be implemented. This is also a yardstick to allow financial practitioners to determine the extent to which entrepreneurs are able to anticipate and develop other functional strategies such as feasibility assessments, market analyses, risk assessments, sales/financial projections etc.

Plans could vary from elaborate and detailed plans to general plans with vague or no contingencies. Entrepreneurs with a reactive strategy approach are more inclined to construct plans which may be more reactive rather than proactive. In other words this type of entrepreneur would not have thought the business venture through in its entirety. The importance of detailed plans is that a banker or financier would be able to discern whether the entrepreneur was thinking about contingencies and risk which are seen to be very important indicators of entrepreneurial success.

Government plans and policies to reduce poverty and to create jobs have resulted in more resources being put into SME support programmes and entrepreneurship development programmes. Since resources are limited, careful consideration needs to be made when allocating budgets for such programmes. This study improves the current understanding of entrepreneurs and more specifically, the entrepreneurial mindset of start-up entrepreneurs, and provides indications of how supply-side or demand-side assistance could be enhanced in order to improve existing or new intervention programmes by the government. While many government assistance programmes focus on the importance of formal planning such as business plan development, this study emphasises the importance of action planning and how it could complement financial management in order to drive more sustainable SMEs and start-up entrepreneurs in South Africa.

Supply-side support by the Western Cape provincial government has resulted in the establishment of Real Enterprise Development (RED DOOR) centres with the specific purpose of providing support to start-up entrepreneurs in the Western Cape. The mandate of RED Door centres is to render business support services to enhance capacity-building of entrepreneurs in the following areas: business plan development, business health check, business mentoring, and business feasibility study. Entrepreneurship development and capacity-building programmes rendered by government agencies such as RED DOOR are specifically aimed at

the micro and survivalist enterprises. These individuals are more business owners than entrepreneurs due to the fact that most of these entrepreneurs started businesses as a result of becoming unemployed. Starting a business was motivated by survival rather than proactively exploiting real business opportunities (Small and Basardien, 2008).

There are significant gaps that exist between the training provided through the RED DOOR structures and business support that these entrepreneurs actually need. The current business support offered by RED DOOR is by and large supply-driven and rarely addresses the real needs of the entrepreneurs such as coaching and mentoring, nurturing innovative and entrepreneurial behaviour, and access to finance. This is possibly a result of the fact that most RED DOOR officials and staff members have never owned a business (Small and Basardien, 2008). Resultantly, the real training needs and requirements of the entrepreneurs are not properly diagnosed nor understood.

Although RED DOOR has recognized low skills and education to be major factors underpinning the poor performance of start-up entrepreneurs, the focus of entrepreneurial training interventions tends to be on imparting business management skills and an imbalance exists relating to business and entrepreneurial skills. This situation often results in entrepreneurs not being able to apply the knowledge in their businesses in a creative or innovative manner. Some scholars have found evidence to support the view that trained entrepreneurs had a less than 10% chance of failing (World Energy Technology Congress, 2010).

According to Small and Basardien (2008) a large proportion of start-up entrepreneurs that were assisted by RED DOOR were struggling to survive in their respective industries. The study highlighted three areas where skills of these entrepreneurs were limited. These shortcomings included the following:

- Entrepreneurial skills – this relates to leadership, goal setting, entrepreneurial orientation, willingness to take risks, tolerance for ambiguity, sound human relations, innovation and inner control.
- Technical skills – written, oral communication, organizing skills, decision making, and financial interpretation and understanding.

- Business skills – venture planning, financial management, book-keeping, marketing, new product development and pertinent challenges associated with each stage of business development.

This study will be of significant assistance to government support agencies such as RED DOOR in terms of revising the current skills development programmes to assist start-up businesses in the Western Cape. While government aims to continue to support entrepreneurship through RED DOOR, it is also important and necessary to measure and to monitor the success of the various interventions conducted by RED DOOR. This study has introduced very specific entrepreneurship skills and focal areas that should be introduced into these programme interventions in order to improve success rates.

6.3 ENTREPRENEURSHIP EDUCATION IN SOUTH AFRICA

It has been pointed out that entrepreneurial learning is a possible solution to the current problems experienced in South Africa (GEM, 2006). However, scholars have shown that the entrepreneurial attitude must be developed in learners in schools in order to impact directly on entrepreneurship within the economy (Botha, 2006).

One of the major challenges in a South African context is the development of people. Due to apartheid and the education policies of the Nationalist government the majority of South Africans adults are unskilled and poorly educated. This often translates into poor decision making in start-up businesses (Rwigema and Venter, 2004). According to Rwigema and Venter (2004) South Africa has a ratio of skilled to unskilled work force of 1:5 as opposed to 1:2 in developed countries. It is therefore not surprising that many start-up businesses are in the main a replication of existing ideas and many start-up businesses end in failure. These phenomena have clear implications for the country's social growth, economic development and global competitiveness.

The GEM Report (2006) has indicated that individuals with higher education are more likely to start a new business venture and progress past the start-up phase. GEM (2003) has emphasized that access to education is critical, with a specific focus on critical skills such as financial

literacy, record-keeping and marketing. Despite the fact that entrepreneurship education is necessary to induce more start-up businesses, several limitations still exist in terms of addressing the above-mentioned factors in order to increase successful entrepreneurship.

This study has indicated the importance of financial management practices as a vital part of entrepreneurship education and training, particularly of start-up entrepreneurs. This study has indicated that, while they should not be seen as the only factors driving success, basic as well as advanced financial management practices are important factors for start-up businesses. This study has also shown that specific entrepreneurial actions and strategies are complementary to financial management practices and therefore a more holistic approach is needed to drive training and educational interventions.

Friedrich and Visser (2005) argue that there is a gap between the perception of training providers and entrepreneurs in terms of training needs. Most training providers tend to focus on a wide range of business skills where these skills are more necessary to run larger organisations than a small enterprise (Nieman *et al.*, 2003). The training needs for small businesses are different compared to larger organisations. However, in South Africa, training providers tend to employ a one-size-fits-all strategy. It is common, for example, for entrepreneurship training practitioners to include principles of management in training programmes, where in most cases the training content relates to large-scale enterprises. Yet, according to Rogerson (2005), a large proportion of start-up entrepreneurs in the Western Cape have no previous management/entrepreneurial experience and do not have the necessary experience of the potential pitfalls in their respective industries.

The majority of SMEs in South Africa are survivalist, one person-managed business (Rogerson, 2000). Stats SA (2004) indicated that there were 1 138 854 micro enterprises in South Africa. It is argued that the micro or survivalist enterprises contribute toward job creation to a greater degree than growth of established formal firms (Berry *et al.*, 2002).

GEM (2003) supports the view that the lack of education and training are major factors in retarding the entrepreneurial environment. Despite the fact that there are a number of entrepreneurship training programmes, these programmes often fail to meet the real training needs of the entrepreneurs. It has been pointed out that there is a significant gap in terms of the

perception of training providers and the entrepreneurs (Botha, Nieman and Van Vuuren, 2006). Considering that the failure rate of small businesses continues to be significant and that necessity entrepreneurship is essentially driven by poverty and job redundancy, it is necessary to provide potential and existing entrepreneurs with quality entrepreneurship education and the delivery of effective support services.

The Western Cape also has a significant number of potential and existing formal entrepreneurs with higher levels of education, where entrepreneurship training could increase the sustainability of start-up businesses. This study can assist training providers in reviewing the current training needs and requirements, particularly relating to start-up entrepreneurs and reformulating the training programmes in order to improve service delivery and quality.

Currently, entrepreneurship education lacks an accepted paradigm or theories which can assist the trainer and educator to include material which will attempt to achieve the following:

- convince the student to become actively involved in entrepreneurship;
- understand the world of entrepreneurship; and
- offer career alternatives to students by means of formal tuition

(Ladzani and Van Vuuren, 2002).

Institutional training focuses primarily on the training of management skills and not on entrepreneurial skills. Most universities in South Africa have specialized training centres for entrepreneurship and/ or small business management where courses are offered to potential and existing entrepreneurs on a short-term basis (Jesselyn and Mitchell, 2006). Most of the entrepreneurship training programmes focus on transferring a wide range of business skills. These training programmes focus on developing skills that are more relevant to large organisations rather than small businesses (Jesselyn and Mitchell, 2006). The training requirements are unique to various types of small businesses where a 'one size fits all' strategy tends to be common practice.

A number of limitations are of concern relating to the content of entrepreneurship training and education. Firstly, the content of the training programmes are based on general management rather than entrepreneurship. Another limitation is that there is little standardization or quality control from training centre to training centre and there is no overall government policy

relating to specific skills required in various types of small businesses (Jesselyn and Mitchell, 2006). The training centres offer general business/ management skills training rather than specific skills training in order to assist as many people as possible.

The training industry is supply-driven rather than demand-driven. Botha, Nieman and Van Vuuren (2007) point out that most training providers are merely transferring knowledge to entrepreneurs rather than transferring skills and suggest that this is the real failing of entrepreneurship training programmes. This study highlights the need for specific skills that are based on current needs and requirements by start-up entrepreneurs.

Although it is widely acknowledged that specific skills such as financial management, marketing and general management are commonly associated with business failure, there is a lack of conclusive empirical evidence to suggest that these skills can be associated with entrepreneurial success in isolation. GEM (2003) suggests that the primary issues affecting small businesses are management skills (for example, inexperience and lack of training); marketing (for example poor location or inability to identify markets or opportunities); human resources (e.g. low productivity); operations (e.g. lack of quality control systems); and management behaviour (e.g., reluctance to seek advice or lack of commitment).

The above-mentioned issues are very specific to entrepreneurship training and some of these factors have even been included in training programmes. However, strategy process characteristics represent a very useful indication of the extent to which start-up entrepreneurs are implementing actions and specific strategies which can influence the success or failure of factors such as marketing strategy and financial strategy.

Start-up entrepreneurs whose products and services add little value and those with inefficient marketing strategies do not possess adequate entrepreneurial and managerial skills to respond to environmental shocks, particularly in competitive and dynamic environments (Mazibuko, Smith and Struwig, 1996). It is important for start-up entrepreneurs to align services or products effectively with the relevant target market. Start-up businesses therefore have specific entrepreneurial training requirements which are often not included in entrepreneurship training.

This study included learning orientation as a vital component of entrepreneurial orientation, indicating the importance of learning from experiences in order to improve revised actions and

strategies. Generally, the proliferation of training providers resulted in training curricula focusing on three areas in entrepreneurship education, namely, entrepreneurial skills, technical skills and business skills (Mulder, Lans, Verstegen, Biemans and Meijer, 2007). Mulder *et al.* (2007) further state that a more holistic approach is needed in entrepreneurship education in order to address the required focal areas in business. This study therefore provides evidence to support the introduction of psychological concepts as key components toward understanding attitudes and issues related to planning and how these can improve entrepreneurship education.

6.4 LIMITATIONS OF THIS STUDY AND DIRECTIONS FOR FUTURE RESEARCH

Most of the information was obtained from the entrepreneurs themselves. Most entrepreneurs either did not maintain any records of the business or the business records were not available at the time of the interview. Therefore, the study placed a great deal of reliance on the memory and interpretation of the entrepreneur. The limitation here is that potential bias of entrepreneurs may result in exaggeration of aspects such as profit and turnover. In addition, start-up entrepreneurs tend to be very sceptical and defensive in a South African context and find great difficulty in revealing information about their businesses, particularly financial information (Krauss, 2003; Frese, 2000; Krauss *et al.*, 2005). However, in order to negate these possibilities, entrepreneurs were assured of the confidentiality of the information obtained.

It is difficult to measure entrepreneurial success as has been echoed in many empirical studies (Wiklund, 1998). In this study, partly interdependent success constructs were used to reflect entrepreneurial success. No truly objective measure of entrepreneurial success was used, such as an exact financial ratio, due to the fact that audited financial statements were not accessible. This could possibly also be due to a level of mistrust among South African entrepreneurs especially with regard to disclosing financial information to strangers. Financial information and valid profitability measures were difficult to ascertain. Several entrepreneurs were reluctant to disclose accurate financial data, perhaps partly due to tax reasons and confidentiality.

The multiplicity of measures used for entrepreneurial success has been found to offer an acceptable way to overcome the problems associated with measuring entrepreneurial and

business performance (Meyer and Gupta, 1994). Hence, four measures of success were used, namely, external success, size success, growth and subjective success.

The explained variance in entrepreneurial success measures in turnover, profit, client and employee growth is in line with similar studies found in industrial and organisational psychology (Meyer *et al.*, 2001). Another limitation is that the cross-sectional study design used in this study did not allow for the testing and examining of causal hypotheses. Longitudinal studies by Van Gelderen (2000) and Krauss (2005) have shown that a certain degree of planning (higher level planning strategies) leads to success, which in turn leads to more detailed planning. On the other hand, lower level planning strategies led to lower levels of success, which in turn produced higher levels of reactive planning strategies. The generalizability of a study like this is likely, considering that similar relationships were found in other studies in an African context (Frese, 2000).

One of the strengths of this study is the use of structured interviews. The combination of qualitative interviews and a quantitative coding scheme can overcome problems associated with erratic answers to questions and incorrect interpretation by the respondents. Structured interviews have been found to have good value in meta-analysis (Schmidt and Hunter, 1998) but have also created opportunities to probe deeper into answers in order to derive greater clarity and understanding.

In determining the extent of strategy process characteristics that are used by entrepreneurs, the structured interview approach was a useful procedure in obtaining accurate and reliable responses. The interview procedure used many prompts and looked at entrepreneurial orientation and strategy process characteristics in detail, which in turn provided rich detail from the respondents. These qualitative responses were then coded into quantitative data which contributed to creating meaningful interpretation of relationships between psychological variables and economic indicators of success. Furthermore, the additional explained variance of the moderator effects and partial correlations amount to significant explained variance in a difficult area.

Finally, our sample consisted of small businesses with one to fifty employees, implying that the results cannot be generalized to one-person enterprises which constitute the majority of the South African small businesses sector (Mead and Liedholm, 1998).

6.5 FUTURE RESEARCH

This study has important implications for future research in entrepreneurship. Action planning is a concept that is relevant for start-up as well as established entrepreneurs. In light of the findings highlighted in this study, research involving action planning is a valuable field of entrepreneurship research and further analysis appears promising. Research involving action planning is particularly important as most start-up entrepreneurs operate in resource-constrained environments. In the event of business failure, it could become increasingly difficult to obtain investment capital, resulting in fewer start-up businesses and an immediate impact on sustainable livelihoods, particularly in less affluent communities.

Although no significant effects were found for opportunistic strategy, it is a specific strategy that is used to classify an entrepreneurial strategy. Future research should make use of more sophisticated approaches as well as task domain analyses, moderators, mediators, specific personality factors, emphasizing processes (example, interactions with environment and changes of the environment) and include varied situations. Future research should focus on investigating opportunistic strategies in relation to entrepreneurial success using longitudinal studies since research (see Van Gelderen, 2000; Gielniek, 2010) has indicated that entrepreneurs may adopt planning strategies such as complete planning and critical point planning strategies in later phases of development.

This study has acknowledged the importance of financial management practices and action planning in relation to success. The study raised a number of options for future research. Future research should examine the financial management practices-action planning-success relationship under different cultural contexts – taking into consideration that South Africa comprises a largely cosmopolitan society with diverse cultural backgrounds. This would also be of particular interest in a South African context as more opportunities are made available through government assistance programmes – taking into account that preferential procurement

policies and strategies are designed to empower start-up entrepreneurs. Research has shown that start-up entrepreneurs lack financial management skills and this has impacted directly on their ability to access finance, cash flow management and overall profitability. Future research could examine the financial management practices-action planning-access to finance/cash flow management/overall profitability relationship under different cultural contexts and geographic locations.

Similar studies should incorporate other dimensions of management such as marketing plans, operations planning and human resource planning. Business failure is not always attributed to the lack of budgeting or cash flow management but could also be as a result of other functional elements of management. Therefore, future studies could examine moderating and mediating effects of action planning on the other functional elements of management mentioned. Lastly, future research could consider moderating and mediating effects of action planning on established firms (firms older than five years) through a comparative approach (start-up versus established firms) of the financial administration – access to finance relationship. The results could be particularly useful to bankers and venture capitalists.

6.6 CONCLUSION

The purpose of this study was to examine the use of psychological factors in explaining success in entrepreneurship. It is clear that psychological factors such as strategy process characteristics and entrepreneurial orientation should be considered in contemporary entrepreneurship research, particularly at the individual level, particularly while most research has been centred on firm level studies. While the importance of financial management is acknowledged in this study, practitioners often tend to overemphasise the importance of financial management without sufficient consideration for alternative perspectives on entrepreneurial processes mentioned in the study.

No clear evidence was found to show significance in the human capital-success relationship. Nonetheless, the construct of human capital remains complex and challenging to find an accurate measure. It is therefore possible that human capital with specific knowledge in finance could be useful to the entrepreneur when implementing advanced financial management,

particularly relating to more responsive decision making, better cash flow management and overall financial planning.

A small significant relationship was found between financial management and success. Although previous findings indicated that the implementation of financial management practices could lead to improved access to finance or better cash flow stability, it is not entirely representative of the entrepreneur's total strategy, particularly relating to the formulation and implementation of a specific strategy such as financial management practices. This study shows that the introduction of psychological concepts such as strategy process characteristics and entrepreneurial orientation could enhance specific strategies such as financial management practices. For example, the extent to which formal strategies such as financial management practices are implemented could be complemented by the type of strategy process characteristic.

Complete planning and critical point planning are representative of high-level planning strategies and have been shown to be associated with success, compared to lower level planning strategies such as reactive planning and opportunistic planning strategies. Similarly, higher levels of entrepreneurial orientation could facilitate the entrepreneurial realization of new combinations. New ways of looking at business processes or formal strategies such as financial management practices could lead to improved cash flow projections, budgets and overall profitability assessments. Higher levels of entrepreneurial orientation also reflect on the ability of the entrepreneur to learn from positive and negative experiences, which is important for success in entrepreneurship.

Finally, the thesis demonstrates the usefulness of psychological approaches in entrepreneurship research and offers value in obtaining a better understanding of the entrepreneurial process, particularly relating to success. This approach in entrepreneurship also represents an interface between business/management and psychology, as psychological variables have been shown in this study to be clearly related to success. In this study, however, psychological variables were used as moderators and mediators in the entrepreneurial process that is linked to success.

LITERATURE CONSULTED

Acs, J.Z. & Armington, C. 2002. The Determinants of Regional Variation in New Firm Formation. *Regional Studies*, **36**, 33 – 45.

Acs, Z.J. & Armington, C. 2004. *Job Creation and Persistence in Services and Manufacturing*. Papers on Entrepreneurship, Growth and Public Policy 2004-16, Max Planck Institute of Economics, Entrepreneurship, Growth and Public Policy Group.

Acs, J.Z. & Armington, C. 2006. *Entrepreneurship, Geography and Economic Growth*. New York: Cambridge University Press.

Acs, Z.J. & Audretsch, D.B. 2003. Innovation and Technological Change. In Acs, Z.J. & Audretsch, D.B. (eds.). *Handbook Of Entrepreneurship Research*. Boston: Kluwer Academic Publishers, 50-80.

Acs, J.Z., Audretsch, D., Braunerhjelm, P. & Carlsson, B. 2003. *The Missing Link: the Knowledge Filter, Entrepreneurship and Endogenous Growth*. Stockholm: Center for Economic Policy Research.

Agresti, A. & Finlay, B. 1997. *Statistical Methods for the Social Sciences*. New Jersey: Prentice Hall.

Aiken, L.S. & West, S.G. 1991. *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park: Sage.

Aldrich, H.E. & Wiedenmayer, G. 1993. From Traits to Rates: an Ecological Perspective on Organizational Foundings. In Katz, J.A. & Brockhaus,

R.H. (eds.). *Advances in Entrepreneurship, Firm Emergence, and Growth*, JAI Press, 145-195.

Aldrich, H.E. 1999. *Organizations Evolving*. London: Sage.

Aldrich, H.E. & Martinez, M. 2003. Entrepreneurship as Social Construction. In Acs, Z.J. & Audretsch, D.B. (eds.). *Handbook of Entrepreneurship Research*. Dordrecht: Kluwer Academic Publishers.

- Allen, K. & Stearns, T. 2004. Technology Entrepreneurs. In W.B. Gartner, K.G. Shaver, N.M. Carter & P.D. Reynolds (Eds.), *Handbook of Entrepreneurial Dynamics. The Process of Business Creation* (438–447). Thousand Oaks, CA: Sage.
- Allinson, C., Chell, E. & Hayes, J. 2000. Intuition and Entrepreneurial Behavior. *European Journal of Work and Organizational Psychology*, **9**, 31–43.
- Andrews, M. 2008. *Is Black Economic Empowerment a South African Growth Catalyst? (Or Could it Be...)*. CID Working Paper No. 170. Matthew Andrews and the President and Fellows of Harvard College.
- Ansoff, H.I. 1965. *Corporate Strategy*. New York: McGraw-Hill.
- Ardichvili, A., Cardozo, R. & Ray, S. 2003. A Theory of Entrepreneurial Opportunity Identification, and Development. *Journal of Business Venturing*, **18**(1), 105–123.
- Argyris, C. 1992. *On Organizational Learning*. Oxford: Blackwell Publishers Ltd.
- Armstrong, J.S. 1982. The Value of Formal Planning for Strategic Decisions: review of Empirical Research. *Strategic Management Journal*, **3** (3), 197–211
- Atkinson, D. 2008. *Promoting the Second Economy in Small and Medium-Sized Towns*. A Paper for the Second Economy Strategy Project: an initiative of the Presidency.
- Audretsch, D.B. 2001. Capitalism and Democracy in the 21st Century: from the Managed to the Entrepreneurial Economy. *Journal of Evolutionary Economics*, **10** (1): 17 – 34.
- Audretsch, D.B. & Keilbach, M. 2004. Does Entrepreneurship Capital Matter? *Entrepreneurship Theory & Practice*, Fall, 2004.
- Autio, E. 2005. *Report on High-Expectancy Entrepreneurship*. Global Entrepreneurship Monitor Report. Babson: HEC Lausanne.
- Baker, T., Miner, A.S. & Eesley, D.T. 2001. Fake It until You Make It: Improvisation and New Ventures. *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College.
- Bamford, C.E., Dean, T.J. & McDougall, P.P. 1997. Initial Strategies and New Venture Growth: an Examination of the Effectiveness of Broad Vs. Narrow Breadth Strategies. In

Reynolds, P.D., Bygrave, W.D., Carter, N.M., Davidsson, P., Gartner, W.B., Mason, C.M. & McDougall, P.P. (eds.). *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College, 375-389

Baron, R.A. 1998. Cognitive Mechanisms in Entrepreneurship: Why and When Entrepreneurs think differently than other People. *Journal of Business Venturing*, **13**, 275–294.

Baron, R.A. & Katz, J.A. 2007. Entrepreneurship: A Process Perspective. In Baum, J.R., Frese, M. & Baron, R.A. (eds.). *The Psychology of Entrepreneurship*. Mahwah, NJ: Erlbaum, 19–39.

Baron, R.M. & Kenny, D.A. 1986. The Moderator-Mediator Variable Distinction in Social Psychological Research – Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, **51** (6), 1173–1182.

Bates, T. 1990. The Characteristics of Business Owners Data Base. *J Hum Res* **25** (4), 752–56.

Baum, J.R., Frese, M., Baron, R.A. & Katz, J.A. 2007. Entrepreneurship as an Area of Psychology Study: an Introduction. In Baum, J.R., Frese, M. & Baron, R.A. (eds.). *The Psychology of Entrepreneurship*. Mahwah, NJ: Erlbaum, 1 – 18.

Baum, J.R. & Locke, E.A. 2004. The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth *Journal of Applied Psychology*, **89** (4), 587–598.

Baum, J.R., Locke, E.A. & Smith, K. 2001. A Multi-Dimensional Model of Venture Growth. *Academy of Management Journal*, **44**, 292–303.

Baum, J.A.C. & Silverman, B.S. 2004. Picking Winners or Building Them? Alliance, Intellectual, and Human Capital as Selection Criteria in Venture Financing and Performance of Biotechnology Startups. *Journal of Business Venturing*, **19**, 411-436.

Baumford, C. E., Dean, T. J. & McDougall, P. P. 1997. Initial Strategies and New Venture Growth: An Examination of the Effectiveness of Broad vs. Narrow Breadth Strategies.

Baumol, W.J. 2002. *The Free-Market Innovation Machine*. Princeton, NJ: Princeton University Press.

- Baumol, W.J. 2006. Education For Innovation: Entrepreneurial Breakthroughs Versus Corporate Incremental Improvements. *NBER Innovation Policy and the Economy*, **5** (1), 33–56.
- Becherer, R.C. & Maurer, J.G. 1999. The Proactive Personality Disposition and Entrepreneurial Behavior among Small Company Presidents. *Journal of Small Business Management*, January, 1999, 28-36.
- Becker, G.S. 1964. *Human Capital*. Chicago: Chicago University Press.
- Berman, J.A., Gordon, D.D. & Sussman, G. 1997. A Study to determine the benefits Small Business Firms derive from Sophisticated Planning versus Less Sophisticated Types of Planning. *Journal of Business And Economic Studies*, **3** (3), 1–11.
- Berry, A., Cassim, R., Kespers, A. & Rajaratnam, B. 2002. *The Economics of SMEs in South Africa*. [Online] Available: <http://ww.tips.afrihost.com/research/papers/pdfs/506.pdf>. Accessed: 8 August 2007.
- Bhide, A. 2000. *The Origin and Evolution of New Businesses*. New York: Oxford.
- Bhuian, S. N., Menguc, B. & Bell, S. J. (2005). Just Entrepreneurial Enough: The Moderating Effect of Entrepreneurship on the Relationship between Market Orientation and Performance. *Journal of Business Research*, **58**, 9-17.
- Binks, M., Starkey, K. & Mahon, C.L. (2006) Entrepreneurship Education and the Business School. *Technology Analysis & Strategic Management*, **18** (1), 1-18.
- Blawatt, K. 1995. *Defining the Entrepreneurs: A Conceptual Model of Entrepreneurship*. Proceedings of the 12th Annual Conference of the CCSBE (Canadian Council for Small Business and Entrepreneurship), Thunder Bay, Ontario, October, 13-37.
- Blenker, P., Dreisler, P. & Kjeldsen, J. 2008. A Framework for Developing Entrepreneurship Education in a University Context. *International Journal of Entrepreneurship and Small Business*, **5** (1), 45–63.

Bosma, N., Acs, Z., Autio, E., Coduras, A. & Levie, J. 2008. *Global Entrepreneurship Monitor 2008 Executive Report*. London, UK: London Business School; Universidad del Desarrollo and Babson Park, M.A.: Babson College.

Bosma, N. & Levie, J. 2009. *Global Entrepreneurship Monitor 2009 Global Report*. Santiago, Chile: Universidad del Desarrollo, Babson Park, M.A.: Babson College and Reykjavik, Iceland: Reykjavik University.

Botha, M. 2006. *Measuring the Effectiveness of the Women Entrepreneurship Programme as a Training Intervention on Potential Start-up and Established Women Entrepreneurs in South Africa*. Unpublished Thesis. Pretoria: University of Pretoria.

Botha, M., Nieman, G.H. & Van Vuuren, J.J. 2006. Evaluating the Woman Entrepreneurship Training Programme: a South African Case Study. *International Indigenous Journal of Entrepreneurship, Advancement and Strategy*, **2** (1). [Online] Available: <http://www.indigenousjournal.com/IJIEASVolIIIss1Botha.pdf>

Botha, M., Nieman, G.H. & Van Vuuren, J.J. 2007. Evaluating the Woman Entrepreneurship Training Programme: A South African Case Study. *International Indigenous Journal of Entrepreneurship, Advancement and Strategy*.

Bruederl, J., Preisendoerfer, P. & Ziegler, R. 1992. Survival Chances of Newly Founded Business Organizations. *American Sociological Review*, **57**, 227-242.

Briggs, S.R. & Cheek, J.M. 1986. The Role of Factor Analysis in the Development and Evaluation of Personality Scales. *Journal of Personality*, **54**, 106-148.

Brinckmann, J., Grichnik, D. & Kapsa, D. 2010. Should Entrepreneurs Plan or just storm the Castle? A Meta-Analysis on Contextual Factors Impacting the Business Planning–Performance Relationship in Small Firms. *Journal of Small Business Venturing*, **25**, 24-40.

Brockhaus, R.H. 1980. Psychological and Environmental Factors which distinguish the Successful from the Unsuccessful Entrepreneur. In R.C. Huseman (ed.). *Proceedings of the 40th Annual Meeting of the Academy of Management*. Detroit, MI, 368–372.

- Brockhaus, R.H. & Horwitz, P.S. 1986. The Psychology of the Entrepreneur, in Sexton, D.L. & Smilor, R.W. (eds.). *The Art and Science of Entrepreneurship*. Cambridge: Ballinger, 25–48.
- Brown, D.R. & Harvey, D. 2006. *An Experiential Approach to Organisational Development*, 7e.
- Bygrave, W.D. & Hofer, C.W. 1991. Theorizing about Entrepreneurship. *Entrepreneurship Theory and Practice*, **16** (2), 13–22.
- Caliendo, M. & Kritikos, A. 2008. Is Entrepreneurial Success Predictable? An Ex-Ante Analysis of the Character-Based Approach. *KYKLOS*, **61** (2), 189–214.
- Callaghan, C. & Venter, R. (2011). An investigation of the entrepreneurial orientation, context and entrepreneurial performance of inner-city Johannesburg street traders. *Southern African Business Review*, **15** (1).
- Cantillon, R. 1755. *Essai Sur La Nature Du Commerce En Général*. London: Fetcher Gyler. Also edited in an English version, with other material, by Higgs, H. London: MacMillan (1931).
- Cantillon, R. 1931. *Essai sur le Nature de Commerce en Général*. Edited and translated by Higgs, H. London: Macmillan.
- Caprana, G.V. & Cervone, C. 2000. *Personality: Determinants, dynamics, and potentials*.
- Case, J. 1989. The Origins of Entrepreneurship. *Inc. Magazine*, **54**.
- Cassar, G. 2004. The Financing of Business Start-Ups. *Journal of Business Venturing*, **19**, 261-283.
- Casson, M.C. 2003. *The Entrepreneur: An Economic Theory*. MA: Edward Elgar.
- Chandler, A.D. 1962. *Strategy and Structure*. Mass.: Massachusetts Institute of Technology Press.

- Chandler, G.N. & Hanks, S.H. 1996. An Examination of the Substitutability of Founders Human and Financial Capital in Emerging Business Ventures. *Journal of Business Venturing*, **11**, 353-369.
- Chandler, G.N. & Jansen, E. 1992. The Founder's Self-Assessed Competence and Venture Performance. *Journal of Business Venturing*, **7**, 223-236.
- Chandler, G.N. & Hanks, E. 1994. Founder Competence, the Environment, and Venture Performance. *Entrepreneurship Theory and Practice*, **18**, 77 – 89.
- Chell, E., Haworth, J.M. & Brearley, S. 1991. *The Entrepreneurial Personality*. London: Routledge.
- Chen, Y. & Ming-Chuan, L. 2010. Factors influencing the Entrepreneurial Attitude of Taiwanese Tertiary-Level Business Students. *Social Behavior and Personality*, **38** (1), 1-12.
- Christensen, P.S. & Peterson, R. 1990. Opportunity Identification: Mapping the Sources of New Venture Ideas. Paper presented at the 10th Annual Babson Entrepreneurship Research Conference. Denmark: Aarhus University Institute of Management.
- Ciavarella, M.A., Bucholtz, A.K., Riordan, C.M., Gatewood, R.D. & Stokes, G.S. 2004. The Forces of a Character: Does an Entrepreneur Affect an Organisation's Culture? *Journal of Business Venturing*, **19** (4), 465.
- Cohen, J. & Cohen, P. 1983. *Applied Multiple Regression/Correlation Analysis for the Behavioral Science*. Hillsdale, NJ: Erlbaum.
- Cohen, S. & Wills, T.A. 1985. Stress, Social Support, and the Buffering Hypothesis. *Psychol Bulletin*, **98**, 310–57.
- Coleman, J.C. 1988. Social Capital in the Creation of Human Capital. *American Journal of Sociology*, **94**, S95–S120.
- Collins, C.J., Hanges P.J. & Locke, E.A. 2004. The Relationship of Achievement Motivation to Entrepreneurial Behaviour: A meta-analysis. *Human Performance*, **17** (1), 95 - 117.

- Conant, J.S., Mokwa, M.P. & Varadarajan, P.R. 1990. Strategic Types, Distinctive Marketing Competencies and Organizational Performance: A Multiple Measures-Based Study. *Strategic Management Journal*, **11**, 365-383.
- Cooper, A.C. & Gimeno-Gascon, F.J. 1992. Entrepreneurs, Process of Founding, and New Firm Performance. In Sexton, D.L. & Kasarda, J.D. (eds.). *The State of Art of Entrepreneurship*. Boston, 301-340.
- Corbett, A.C. 2007. Learning Asymmetries and the Discovery of Entrepreneurial Opportunities. *Journal of Business Venturing*, **22** (1), 97.
- Costa, P.T. Jr. & McCrae, R.R. 1992. *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) Professional Manual*. Odessa, FL: PAR.
- Covin, J.G. & Slevin, D.P. 1986. The Development and Testing of an Organizational-Level Entrepreneurship Scale. In Ronstadt, R., Hornaday, J.A., Peterson, R. & Vesper, K.H. (eds.). *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College, 628-639.
- Covin, J.G. & Slevin, D.P. 1989. Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic Management Journal* **10** (1), 57-75.
- Covin, J.G. & Slevin, D.P. 1991. A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrepreneurship Theory and Practice*, **16**, 7-26.
- Covin, J.O. & Miles, M.P. 1999. Corporate Entrepreneurship and the Pursuit of Competitive Advantage. *Entrepreneurship Theory and Practice*, **23** (3), 47-63.
- Crant, J.M. 1996. The Proactive Personality Scale as a Predictor of Entrepreneurial Intentions. *Journal of Small Business Management*, **34**, 42-49.
- Cronbach, L.J. 1951. Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, **16**, 297-334.
- Cunningham, J.B. & Lischeron, J.C. 1991. Defining Entrepreneurship. *Journal of Small Business Management*, **29** (1), 45-67.

Dahl, M. S. & Sorenson, O. 2007. Home Sweet Home: Social Capital and Location Choice. Mimeo [Online]: Available: <http://www2.druid.dk/conference/viewpaper.php> (accessed August 2009).

Davidsson, P. & Honig, B. 2003. The Role of Social and Human Capital among Nascent Entrepreneurs. *Journal of Business Venturing*, **18** (3), 301.

Daily, C.M., Certo, S.T. & Dalton, D.R. 2000. A Decade of Corporate Women: Some Progress in the Board Room, None in the Executive Suite. *Strategic Management Journal*, **20**, 93-99.

Demirguc-Kunt, A., Maksimovic, V., Beck, T. & Laeven, L. 2006. The Determinant of Financing Obstacles. *International Journal of Money and Finance*, **25**, 932-952.

Department of Trade and Industry, Republic of South Africa. 2008. Annual Report. [Online] Available: <http://www.dti.gov.za/parliament/dti.pdf>.

Dess, G D. & Robinson, R.B. 1984. Measuring Organizational Performance in the Absence of Objective Measures: the Case of the Privately-Held Firm and Conglomerate Business Unit. *Strategic Management Journal*, **5**, 265-273.

Dimov, D.P. & Shepherd, D.A. 2005. Human Capital Theory and Venture Capital Firms: exploring “Home Runs” and “Strike Outs.” *Journal of Business Venturing*, **20** (1), 1–21.

Doty, D.H., Glick, W.H. & Huber, G.P. 1993. Fit, Effectiveness, and Equifinality: a Test of Two Configurational Theories. *Academy of Management Journal* **36**, 1196–1250.

Durand, D. & Shea, D. 1974. Entrepreneurial Activity as a Function of Achievement Motivation and Reinforcement Control. *The Journal of Psychology*, **88**, 57-63.

Department of Trade and Industry, Republic of South Africa. 2006. *National Industrial Policy Framework*. Department of Trade and Industry: Pretoria.

Dyke, L.S., Fisher, E.M. & Reuber, A.R. 1992. An Inter-industry Examination of the Impact of Owner Experience on Firm Performance. *Journal of Small Business Management*, **30** (4), 72 – 87.

Epstein, S. & O'Brian, E.J. 1985. The Person-Situation Debate in Historical and Current Perspective. *Psychological Bulletin*, **98**, 513 – 537.

European Commission. 2008. *Entrepreneurship in Higher Education, especially within Non-Business Studies*. Final Report of the Expert Group. Brussels, Belgium.

Fatoki, O. & Akinwumi, A. 2010. Which new Small and Medium Enterprises in South Africa have access to Bank Credit? *International Journal of Business and Management*, **5** (10).

Fatoki, O. & Garwe, D. 2010. Obstacles to the growth of new SMEs in South Africa: a principal component analysis approach. *African Journal of Business Management*, **4** (5), 729-738.

Fay, D. & Frese, M. 2001. The Concept of Personal Initiative (PI): an Overview of Validity Studies. *Human Performance*, **14** (1), 97-124.

Ferguson, C.H. 1988. From the People who brought you Voodoo Economics. *Harvard Business Review*, **66** (3).

Fiet, J.O. 2002. *The Systematic Search for Entrepreneurial Discovery*. Westport, CT: Praeger Press.

Finkelstein, S. & Hambrick, D. 1996. Strategic Leadership. *Research Policy*, **32**, 255–276.

FinMark Trust. 2006. *Fin Scope Small Business Survey Report*. [Online] Available: <http://www.finmarktrust.org.za> (accessed 18 May 2007).

Foxcroft, M., Wood, E., Kew, J., Herrington, M. & Segal, N. 2002. *Global Entrepreneurship Monitor, South African report*. [Online] Available: <http://www.gbs.nct.ac.za/gbswebb/userfiles/gemsouthafrica2000pdf> (accessed 16 October 2008).

Frank, A.I. 2007. Entrepreneurship and Enterprise Skills: a Missing Element of Planning Education? *Planning, Practice and Research*, **22** (4), 635–48.

Frank, H., Lueger, M. & Korunka, C. 2007. The Significance of Personality in Business Start-Up Intentions, Start-Up Realization and Business Success. *Entrepreneurship and Regional Development*, **19**, 227–251.

Frese, M., Van Gelderen, M. & Ombach, M. (2000). How to Plan as Small Scale Business Owner: Psychological Process Characteristics of Action Strategies and Success. *Journal of Small Business Management*, **38** (2), 1-18.

Frese, M. & Rauch, A. 2004. *Let's Put the Person Back into Entrepreneurship Research: a Meta-Analysis on the relationship between Business Owners' Personality and Business Creation and Success*. Submitted for publication.

Frese, M. 2000. *Psychological Approaches to Micro-Enterprises in Africa*. Greenwood.

Frese, M., Brantjes, A. & Hoorn, R. 2002. Psychological success factors of small scale businesses in Namibia. *Journal of Developmental Entrepreneurship*, **7** (3), 259-282.

Frese, M., Fay, D., Hilburger, T., Leng, K. & Tag, A. 1997. The Concept of Personal Initiative: Operationalization, Reliability and Validity in two German Samples. *Journal of Organizational and Occupational Psychology*, **70**, 139-161.

Frese, M., Krauss, S. & Friedrich, C. 2000. Micro-enterprises in Zimbabwe: On the function of socio-demographic factors, psychological strategies, personal initiative and goal setting for entrepreneurial success. In Frese, M (ed.). *Success and Failure of Microbusiness Owners in Africa: A Psychological Approach*. Westport, Conn.: Quorum Books, 103-130.

Frese, M. & Rauch, A. 2007. Let's put the Person back into Entrepreneurship Research: a Meta-Analysis on the relationship between Business Owners' Personality Traits, Business Creation and Success. *European Journal of Work and Organizational Psychology*, **16** (4), 353 – 385.

Frese, M. & Zapf, D. 1994. Action as the Core of Work Psychology: a German approach. In Trinadis, H.C., Dunnette, M.D. & Hough L.M. (eds.). *Handbook of Industrial and Organizational Psychology (2nd ed., Vol. 4)*. Palo Alto, CA: Consulting Psychologists Press.

- Frese, M., Fay, D., Hilburger, T., Leng, K. & Tag, A. 1997. The Concept of Personal Initiative: Operationalization, Reliability and Validity in two German Samples. *Journal of Occupational and Organizational Psychology*, **70**, 139-161.
- Friedrich, C. & Visser, K. (eds.). 2005. *South African Entrepreneurship Education and Training*. De Doorns: Leap Publishing.
- Gartner, W.B. 1989. "Who is an Entrepreneur?" is the Wrong Question. *Entrepreneurship Theory and Practice*, **13**, 47–68.
- Gartner, W.B. 1988. "Who Is An Entrepreneur?" is the Wrong Question. *American Journal of Small Business*, **12** (4), 11–32.
- Gartner, W.B. & Liao, J. 2005. Cents and Sense Making in Pre-venture Business Planning: evidence from the Panel Study of Entrepreneurial Dynamics. *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College.
- Gasse, Y. 1971. Elaborations on the Psychology of the Entrepreneur. In Kent, C.A., Sexton, D.L. & Vesper K.H. (eds.), *Encyclopedia of Entrepreneurship*. Englewood Cliffs, NJ: Prentice-Hall, 57 – 71.
- Gielniek, M.M. 2010. *Opportunity Identification And Exploitation: Psychological Factors For Start-Up And Success In Entrepreneurship*. Unpublished PhD Thesis.
- Gil, R. & Hartmann, W.R. 2007. *Airing your Dirty Laundry: Vertical Integration, Reputational Capital and Social Networks*. University of California, Santa Cruz Working Paper.
- Giles, C. & Krause, M. 2007. Business Survey Report – Harare, Kuyasa, Khayelitsha. Violence Prevention through Urban Upgrading in Khayelitsha.
- Gimeno, J., Folta, T.B., Cooper, A.C. & Woo, C.Y. 1997. Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, **42** (4), 750–783.

- Goebel, S. & Frese, M. 1999. Persoenlichkeit, Strategien und Erfolg bei Kleinunternehmern. In Moser, K., Batinic, B. & Zempel, J. (eds.). *Unternehmerisch erfolgreiches Handeln*. Goettingen: Hogrefe.
- Goerzen, A. & Beamish, P.W. 2005. The Effect of Alliance Network Diversity on Multinational Enterprise Performance. *Strategic Management Journal*, **26**(4), 333-354.
- Gomez-Mejia, L.R. & Balkin, D.B. 1989. Effectiveness of Individual and Aggregate Compensation Strategies. *Industrial Relations*, **28** (3), 431-445.
- Goosen, C.J., Coning, T.J. & Smit, E. 2002. Corporate Entrepreneurship and Financial Performance; The Role of Management. *South African Journal of Business Management*, **33** (4), 21- 27.
- Gorman, G., Hanlon, D. & King, W. 1997. Some Research Perspectives on Entrepreneurship Education, Enterprise Education and Education for Small Business Management: a Ten-Year Literature Review. *International Small Business Journal*, **15** (3), 56-77.
- Grant, R.M. 1996. Toward a Knowledge-Based Theory of the Firm. *Strategic Management Journal*, **17**, 109-12.
- Grundling, I. & Kaseke, T. 2010. *Finscope South Africa: Small Business Survey*. [Online]: Available: <http://www.finmarktrust.org.za> (accessed 25 June 2010).
- Haber, S. & Reichel, A. 2007. The Cumulative Nature of the Entrepreneurial Process: The Contribution of Human Capital, Planning and Environmental Resources to Small Venture Performance. *Journal of Business Venturing*, **22**(1), 119-145.
- Hacker, W. 1986. *Arbeitspsychologie (Work psychology)*. Bern: Hans Huber.
- Hacker, W. 1994. Action Theory and Occupational Psychology. Review of German Empirical Research since 1987. *The German Journal of Psychology*, **18** (2), 91 – 120.
- Hart, S. & Banbury, C. 1994. How strategy-making processes can make a difference. *Strategic Management Journal* **15** (4): 251–270.

Herrington, M. & Wood, E. 2003. *Global Entrepreneurship Monitor, South African Report* [Online] Available: <http://www.gbs.nct.ac.za/gbswebb/userfiles/gemsouthafrica2000pdf> [Accessed: 10 May, 2009].

Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.C. 1998. *Multivariate Data Analysis (5th ed.)*. Upper Saddle River, New Jersey: Prentice Hall International, Inc.

Heider, F. 1958. *The psychology of interpersonal relations*. New York: John Wiley & Sons.

Hellriegel, D., Jackson, S.E., Slocum, J., Staude, G., Amos, T., Klopper, H.P., Louw, L. & Oosthuizen, T. 2008. *Management. (2nd ed.)*. Oxford University Press.

Herrington, M., Kew, J. & Kew, P. 2008. *Global Entrepreneurship Monitor. South African Report*. [Online] Available: www.gsb.uct.ac.za/cie

Herrington, M., Kew, J. & Kew, P. 2009. *Global Entrepreneurship Monitor, South African report*. [Online] Available: <http://www.gbs.nct.ac.za/gbswebb/userfiles/gemsouthafrica2000pdf> Accessed: 15 October 2009.

Herrington, M., Kew, J. & Kew, P. 2010. *Global Entrepreneurship Monitor. South African Report*. [Online] Available: <http://www.gsb.uct.ac.za/cie>

Hiemstra, A.M.F., Van der Kooy, K.G. & Frese, M. 2007. Entrepreneurship in the Street Food Sector of Vietnam – Assessment of Psychological Success and Failure Factors. *Journal of Small Business Management*, **44** (3), 474 – 481.

Hisrich, R.D. 1986. The Female Entrepreneur: a Career Development Perspective. *Academy of Management Review*, **11** (2), 393 – 407.

Hisrich, R.D. 1990. Intrapreneurship. *The American Psychologist*, **45** (1), 209 – 222.

Hisrich, R.D. 2000. Can Psychological Approaches be used effectively: an Overview. *European Journal of Work and Organisational Psychology*, **9** (1), 93–96.

Hisrich, R.D. & Brush, C.G. 1984. *The Woman Entrepreneur: Characteristics and Prescriptions for Success*. Lexington, MA: Lexington Books.

- Hisrich, R.D. & Peters, M.P. 1998. *Entrepreneurship (4th ed.)*. Chicago: Irwin McGraw-Hill.
- Hofer, C.W. & Bygrave, W.D. 1992. Researching Entrepreneurship.
- Hitt, M.A., Harrison, J.S. & Ireland, R.D. 2001. *Mergers and Acquisitions: a Guide to Create Value for Stake-Holders*. New York: Oxford University Press.
- Honig, B. 2004. Entrepreneurship Education: Toward a Model of Contingency-based Business Planning. *Academy of Management Learning & Education*, **3** (3), 258 – 273.
- Honig, B. & Karlsson, T. 2007. Institutional Forces and the Written Business Plan. *Journal of Management*, **30** (1), 29-48.
- Hornaday, J.A. 1982. Research about Living Entrepreneurs. In Kent, C.A., Sexton, D.L. et al. (eds.) *Encyclopedia of Entrepreneurship*, Englewood Cliffs, N.J.: Prentice Hall, 20-34.
- Hundall, P.S. 1971. A Study of Entrepreneurial Motivation: Comparison of Fact – and Slow - Progressing Small Scale Industrial Entrepreneurs in Punjab, India, *Journal of Applied Psychology*, **55** (4), 317-323.
- Iansiti, M. 1993. Real-world R&D: Jumping the product generation gap. *Harvard Business Review*, **71** (3), 138–147.
- Jaccard, J. & Turrisi, R. 2003. *Interaction effects in multiple regression*. Newbury Park: Sage.
- Jantunen, A., Puumalainen, K., Saarenketo, S. & Kylaheiko, K. 2005. Entrepreneurial Orientation, Dynamic Capabilities and International Performance. *Journal of International Entrepreneurship*, **3**, 223–243.
- Jesselyn, M. & Mitchell, B. 2006. Entrepreneurship Education in South Africa: a Nationwide Survey. *Education and Training*, **48** (5), 348-359.
- Johnson, J.W. 2003. Toward a Better Understanding of the Relationship Personality and Individual Job Performance. In Barrick, M.R. & Ryan, A.M. (eds.). *Personality and work: Reconsidering the Role of Personality in Organizations*. San Francisco: Jossey-Bass, 83 – 120.

- Judge, T.A., Bono, J.E., Ilies, R. & Gerhardt, M.W. 2002. Personality and leadership. *Journal of Applied Psychology*, **87** (4), 765 – 780.
- Kahneman, D. 1973. *Attention and effort*. Englewood Cliffs, NJ: Prentice Hall.
- Kalnins, A. & Chung, W. 2006. Social capital, geography, and survival: Gujarati immigrant entrepreneurs in the U.S. lodging industry. *Manage Science*, **52** (2), 233–247.
- Kanfer, R. 1992. Work Motivation: New Directions in Theory and Research. In Cooper, C.L. & Robertson, I.T. (eds.). *International Review of Industrial and Organizational Psychology (Vol. 7)*. Chichester: Wiley, 1-54.
- Karlsson, T. & Honig, B. 2007. *Norms Surrounding Business Plans and their Effect on Entrepreneurial Behaviour*. Wellesley, MA: Babson College.
- Kean, R.C., Niemeyer, S. & Miller, N.C. 1996. Competitive Strategies in the Craft Product Retailing Industry. *Journal of Small Business Management*, **34** (1), 13-23.
- Khandwalla, P.N. 1976/77. Some Top Management Styles, their Context and Performance. *Organization and Administrative Sciences*, **7** (4), 21-51.
- Kidwell, B. & Turrisi, R. 2003, An Examination of Money Management Tendencies, *Advances in Consumer Research*. Association for Consumer Research, **30**, 112-114.
- Kikooma, J.F. 2010. Rethinking Entrepreneurship Theory and Research Practice: An Exploration into Alternative Theoretical Perspectives. *Makerere Business Journal*, **10**(1), 1-20
- Kirzner, I.M. 1973. *Competition and Entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, I.M. 1997. Entrepreneurial Discovery and the Competitive Market Process: an Austrian Approach. *Journal of Economic Literature*, **35** (March), 60-85.
- Klein, K.J. & Sorra, J.S. 1996. The Challenge of Innovation Implementation. *Academy of Management Review*, **21** (4), 1055-1080.
- Knight, F.H. 1921. *Risk, Uncertainty and Profit*. New York: Kelly & Millman.

Knight, G.A. 1997. Cross-Cultural Reliability and Validity of a Scale to Measure Firm Entrepreneurial Orientation. *Journal of Business Venturing*, **12**, 213–225.

Kourilsky, M.L. & Walstad, W. B. 1998. Entrepreneurship and Female Youth: Knowledge, Attitudes, Gender Differences and Educational Practices. *Journal of Business Venturing*, **13**(1), 77-88.

Kotze, L, & Smit, A. 2008. Personal Financial Literacy and Personal Debt Management: The Potential Relationship With New Venture Creation. *African Journal of Business Management*, **1**(1), 35-50.

Krauss, S.I. 2003. *Psychological Success Factors of Small and Micro Business Owners in Southern Africa: A Longitudinal Study*. Unpublished PhD Thesis.

Krauss, S.I., Frese, M., Friedrich, C. & Unger, J. 2005. Entrepreneurial Orientation: A Psychological Model of Success among Southern African Small Business Owners. *European Journal of Work and Organisational Psychology*, **14** (3), 315-344.

Krauss, S. I., Frese, M. & Friedrich, C. 2005. Entrepreneurial Orientation: A Psychological Model of Success among Southern African Small Business Owners. *European Journal of Work and Organizational Psychology*. **20** (2):75–84.

Kreiser, P.M., Marino, L.D. & Weaver, M.K. 2002. Assessing the Psychometric Properties of the Entrepreneurial Orientation Scale: a Multi-Country Analysis. *Entrepreneurship Theory and Practice*, **Spring**, 71–94.

Ladzani, W. & Van Vuuren, J. 2000. Entrepreneurship Training for Emerging SMEs in South Africa. *Journal of Small Business Management*. **40** (2), 154-161.

Lange, J.E., Mollov, A., Pearlmutter, M., Singh, S. & Bygrave, W.D. 2007. Pre-start-up and Formal Business Plans and Post-start-up Performance: a Study of 116 New Ventures. *Venture Capital*, **9** (4), 237 – 256.

Latham, G.P. & Saari, L.M. 1984. Do People Do What They Say: Further Studies on the Situational Interview. *Journal of Applied Psychology*, **69**, 569-573.

- Le Grange, L. 2008. The Didactics Tradition in South Africa: a Reply to Richard Krüger. *Journal of Curriculum Studies*, **40** (3), 399 – 407.
- Leifer, R., McDermott, C.M., O'Connor, G.C., Peters, L.S., Rice, M.P. & Veryzer, R.W. 2000. *Radical Innovation*. Boston: Harvard Business School Press.
- Leonard, D. & Sensiper, S. 1998. The Role of Tacit Knowledge in Group Innovation. *California Management Review*, **40** (3), 112. London: Holt.
- Light, I. 1972. *Ethnic enterprise in America*. Berkeley: University of California Press.
- Low, M.B. 2001. The Adolescence of Entrepreneurship: Specification of Purpose. *Entrepreneurship: Theory Practice*, **25** (4), 17 – 25.
- Low, M.B. & MacMillan, I.C. 1988. Entrepreneurship: Past Research and Future Challenges. *Journal of Management*, **14** (2), 139 – 161.
- Louw, L., Van Eeden, S.M., Bosch, J.K. & Venter, D.J.L. 2003. Entrepreneurial Traits of Undergraduate Students at Selected South African Tertiary Institutions, *International Journal of Entrepreneurial Behaviour & Research*, **9**(1), 5 – 26.
- Lumpkin, G.T. & Dess, G.D. 1996. Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance. *Academy of Management Review*, **21** (1), 135-172.
- Livumile Training Consultants on behalf of Economic Development and Tourism. 2007. Red DOOR Indaba Report. 6th Imbizo.
- Lussier, R.N. & Pfeifer, S. 2001. A Cross-National Prediction Model for Business Success. *Journal of Small Business Management*, **39**, 228-239.
- Maas, G. & Herrington, M. 2006. *Global Entrepreneurship Monitor. South African Executive Report*.

Mabaso, N.R. 2008. *An Investigation into Small Business Failures with Specific Reference to Retrenched Telkom Employees in the Far West Rand (Mogale City, Randfontein And Soweto)*. Unpublished Thesis. Pretoria: University of South Africa.

MacKinnon, D.P. 2008. *Introduction to Statistical Mediation Analysis*. New York: Erlbaum.

Marino, L., Strandholm, K., Steensma, H. K. & Weaver, K. M. 2002. The moderating effect of national culture on the relationship between entrepreneurial orientation and strategic alliance portfolio extensiveness. *Entrepreneurship Theory and Practice*, **26** (4), 145- 160.

Marshall, A. 1891: *Principles of Economics*. London: Macmillan.

Marshall, A. 1930. *Principles of Economics*. London: MacMillan.

Martin, G. & Staines, H. 2008. *Managerial Competencies in Small Firms*. [Online] Available: <http://www.emeraldinsight.com/insight/viewcontentitem.do?contenttype>. (May17, 2009).

Martinez, A.C., Levie, J., Kelley, D.J., Rognvaldur, J., Emundsson, S. & Schott, T. 2009. *Global Entrepreneurship Monitor Special Report. A Global Perspective on Entrepreneurship Education and Training*. Babson College, Universidad Del Desarrollo, Reykjavik University.

Martinko, M.J., Harvey, P. & Dasborough, M.T. 2011. Attribution Theory in the Organisational Sciences: A Case of Unrealised Potential. *Journal of Organisational Behaviour*, **32**(1), 144-149.

Marvel, M.R. & Lumpkin, G.T. 2007. Technology Entrepreneurs' Human Capital and its effects on Innovation Radicalness. *Entrepreneurship Theory & Practice*, **Nov**.

Mazibuko, N.E., Smith, E.E. & Struwig, F.W. 1996. *Training Needs of Micro-Entrepreneurs: a Cross-Cultural Perspective*. Paper delivered at the EBM Research Conference.

McClelland, D.C. 1961. *The Achieving Society*. New York: Free Press.

McCrae, R.R., Costa, P.T. Jr., Ostendorf, F., Angleitner, A., Hrebickova, M., Avia, M.D., Sanz, J., Sanchez-Bernardos, M.L., Kusdil, M.E., Woodfield, R., Saunders, P.R. & Smith, P.B. 2000. Nature over nurture: Temperament, personality, and life span development. *J. Pers. Soc. Psychol.* **78**, 173-186.

Mead, D.C. & Liedholm, C. 1998. The Dynamics of Micro and Small Enterprises in Developing Countries. *World Development*, **26** (1), 61-74.

The Department of Economic Development, Provincial Government of the Western Cape. 2007. *Micro Enterprise Development Strategy*.

Meyer, G.J., Finn, S.E., Eyde, L.D., Kay, G.G., Moreland, K.L. & Dies, R.R. 2001. Psychological Testing And Psychological Assessment: A Review Of Evidence And Issues. *American Psychologist*, **56** (2), 128-165.

Meyer, M.G. & Gupta, V. 1994. The Performance Paradox. *Research in Organizational Behavior*, **16**, 309-369.

Miles, R. & Snow, C. 1978. *Organizational Strategy, Structure, and Process*. New York: McGraw-Hill.

Miller, D. & Friesen, P.H. 1982. Innovation in Conservative and Entrepreneurial Firms: two Models of Strategic Momentum. *Strategic Management Journal*, **3**, 1-25.

Miller, G.A., Galanter, E. & Pribram, K.H. 1960. *Plans and the Structure of Behavior*.

Miller, D. 1983. The Correlates of Entrepreneurship in Three Types of Firms. *Management Science*, **29**, 770 – 791.

Ministry of New and Renewable Energy, New Delhi, Government of India. 2010. World Energy Technology Congress.

Minzberg, H.T. 1983. *Structure in fives: Designing Effective Organizations*. Englewood Cliffs, NY: Prentice-Hall.

Mitchell, R.K., Smith, B., Seawright, L.W. & Morse, E.A. 2000. Cross-Cultural Cognitions and the Venture Creation Decision. *Academy of Management Journal*, **43**, 974–993.

Mosakowski, E. 1998. Entrepreneurial Resources, Organizational Choices, and Competitive Outcomes. *Organization Science*, **9** (6), 625–643.

- Mackay, M. Black-owned tourism industry given a boost. *Independent Online*, 7 July 2006. [Online]. <http://www.ioltravel.co.za/article/view/3552838> (accessed 24 January 2007).
- Moss, T. 2007. *African Development*. London: Lynne Reiner & New York: Cambridge University Press.
- Mulder, M., Lans, T., Verstegen, J., Biemans, H. & Meijer, Y. 2007. Competence Development of Entrepreneurs in Innovative Horticulture. *Journal of Workplace Learning*, **19** (1), 32-44.
- Mvubu, M. 2009. Assessment of the Performance of Small Contractors in Swaziland. Unpublished Masters Dissertation, University of Johannesburg.
- Nayager, T. & van Vuuren, J. 2005. An Analysis of an Organisational Strategy, Structure and Culture that Support Corporate Entrepreneurship in Established Organisations. *SAJEMS NS*, **8**(1), 29-38.
- Nieman, G., Hough, J. & Nieuwenhuizen, C. 2003. *Entrepreneurship: A South African Perspective*. Pretoria: Van Schaik Publishers.
- Norton, W.J. & Moore, W.T. 1998. The Influence of Risk Assessment on Venture Launch or Growth Decisions. In Reynolds, P.D., Bygrave, W.D., Carter, N.M., Manigart, S., Mason, C.M., Meyer, G.D. & Shaver, K.G. (eds.), *Frontiers of Entrepreneurship Research*. Babson Park, MS: Babson College, 232.
- O'Connor, G.C. & Veryzer, R.W. 2001. The Nature of Market Visioning for Technology-Based Radical Innovation. *Journal of Product Innovation Management*, **18**, 231–246.
- Olson, P.D. & Bokor, D.W. 1995. Strategy Process-Content Interaction: effects on Growth Performance in Small, Start-Up Firms. *Journal of Small Business Management*, **27** (1), 34-44.
- Orford, J., Herrington, M. & Wood, E. 2004. *Global Entrepreneurship Monitor. South African Report*.

Orford, J., Wood, E., Fischer, C., Herrington, M. & Segal, N. 2003. *Global Entrepreneurship Monitor: South African Executive Report*. University of Cape Town: The Graduate School of Business.

Pallant, J. 2006. *SPSS Survival Manual: a Step by Step Guide to Data Analysis using SPSS Version 12*. New York: Open University Press.

Pavitt, K. 1991. Key Characteristics of the Large Innovating Firm. *British Journal of Management*, **2** (1), 41.

Peteraf, M.A. 1993. The Cornerstones of Competitive Advantage: a Resource-Based View. *Strategic Management Journal*, **14**, 179-191.

Porter, M. 1980. *Competitive strategy*. New York: Free Press.

Pownall, I. & Lawson, V. 2005. A Regional Entrepreneurial Orientation (REO) Model for a Northern English Town. *Journal of Enterprising Culture*, **13**, 295–331.

Putnam, R.D. 1993. *Making Democracy Work. Civic Traditions In Modern Italy*, Princeton, NJ: Princeton University Press.

Rajagopalan, N., Rasheed, A.M.A. & Datta, D.K. 1993. Strategic Decision Processes: Critical Review and Future Directions. *Journal of Management*, **19**, 349 – 384.

Rauch, A. & Frese, M. 2007. Let's Put the Person Back into Entrepreneurship Research: a Meta-Analysis on the Relationship Between Business Owners' Personality Traits, Business Creation, and Success. *European Journal Of Work And Organisational Psychology*, **16** (4), 353 – 385.

Rauch, A. & Frese, M. 2000. Psychological Approaches to Entrepreneurial Success: a General Model and an Overview of Findings. In Cooper, C.L. & Robertson, I.T. (eds.). *International Review of Industrial and Organizational Psychology*, **15**. New York: Wiley, 101 – 141.

Reynolds, P. D. & Curtin, R. T. 2008. Business Creation in the United States: Panel Study of Entrepreneurial Dynamics. II: Initial Assessment. *Foundations and Trends in Entrepreneurship*, **4**, 155–307.

- Robb, A.M. & Fairlie, R.W. 2009. Determinants of Business Success: an Examination of Asian-Owned Businesses in the USA. *Journal of Population Economics*, **22**, 827- 858.
- Robinson, P.B. & Sexton, E.A. 1994. The effect of education and experience on self-employment success. *Journal of Business Venturing*, **9** (2), 141.
- Robinson, R.B. & Pearce, J.A. 1984. Research Thrusts in Small Firm Strategic Planning. *Academy of Management Review*, **9** (1), 128-137.
- Robinson, P.B., Stimpson, D.V., Huefner, J.C. & Hunt, H.K. 1991. An Attitude Approach to the Prediction of Entrepreneurship. *Entrepreneurship Theory and Practice*, **15** (4), 13-31.
- Robinson, P.B. & Sexton, E.A. 1994. The Effect of Education and Experience on Self-Employment Success. *Journal of Business Venturing*, **9** (2), 141.
- Roccas, S., Sagiv, L., Schwartz, S.H. & Knafo, A. 2002. The Big Five Personality Factors and Personal Values. *Personality and Social Psychological Bulletin*, **28** (6), 789 – 801.
- Rogerson, C.M. 2005. Unpacking Tourism SMEs in South Africa: structure, Support Needs and Policy Response. *Development Southern Africa*, **22**, 623-642.
- Rogerson, C. 2005. The Impact of the South African Government's SME Programmes: a Ten Year Review (1994-2003). *Development Southern Africa*.
- Romer, P.M. 1990. Increasing Returns and Long-run Growth. *Journal of Political Economy*, **94** (5), 1002-37.
- Romer, P.M. 1990. Endogenous Technological Change. *J. Polit. Econ.*, **98**, S71–S102.
- Rondstadt, R.C. 1983. The Decision not to become an Entrepreneur. *Frontiers of Entrepreneurship Research*, Babson College.
- Rue, L.W. & Ibrahim, N.A. 1998. The Relationship between Planning Sophistication and Performance in Small Businesses. *Journal of Small Business Management*, **36**(4), 24-32.
- Rwigema, H. & Venter, R. 2004. *Advanced Entrepreneurship*. Cape Town: Oxford University Press.

- Sandberg, W.R. & Hofer, C.W. 1987. Improving New Venture Performance: the Role of Strategy, Industry Structure, and the Entrepreneur. *Journal of Business Venturing*, **2**, 5-28.
- Sapienza, H.J., Smith, K.G. & Gannon, M.J. 1989. Using Subjective Evaluations of Organizational Performance in Small Business Research. *American Journal of Small Business*, **Winter**, 45-53.
- Saxenian, A. 1994. *Regional Advantage*. Cambridge, Mass.: Harvard University Press.
- Saxenian, A. 2000. Networks of Immigrant Entrepreneurs. In Lee, C.M., Miller, W.F. & Rowen, H.S. (eds.). *The Silicon Valley Edge: A Habitat for Innovation and Entrepreneurship*. Stanford: Stanford University Press.
- Say, J.B. 1971. *A Treatise on Political Economy or the Production, Distribution and Consumption of Wealth*. New York: A.M. Kelley Publishers.
- Scarborough, N.M. & Zimmerer, T.M. 2003. *Effective Small Business Management: An Entrepreneurial Approach (7th ed.)*. Upper Saddle River, NJ: Prentice Hall.
- Schmidt, F. & Hunter, J. 1998. The Validity and Utility of Selection Methods in Personnel Psychology: practical and Theoretical Implications of 85 Years of Research Findings. *Psychological Bulletin*, **124**, 262–274.
- Schultz, T.W. 1971. *Investment in Human Capital*. New York: The Free Press.
- Schumpeter, J. 1934. *Capitalism, Socialism, And Democracy*. New York: Harper and Row.
- Schumpeter, J.A. 1911. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Translated by Redvers Opie. Cambridge, MA: Harvard University Press, [1934].
- Schumpeter, J.A. 1939. *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process*. New York: McGraw-Hill.
- Schumpeter, J.A. 1942. *Capitalism, Socialism, and Democracy*. New York: Harper & Row.

- Sexton, D.L. 2001. Wayne Huizenga: Entrepreneur and Wealth Creator. *Academy of Management Executive*, **1**, 40–48.
- Sexton, D.L. & Auken, P.V. 1985. A Longitudinal Study of Small Business Strategic Planning. *Journal of Small Business Management*, **23** (1), 7 -15.
- Shane, S. 2003. *A General Theory of Entrepreneurship: the Individual-Opportunity Nexus*. Cheltenham: Edward Elgar.
- Shane, S. & Venkataraman, S. 2000. The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, **25** (1), 217 – 226.
- Sharfman, M.P. & Dean, J.W. Jr. 1991. Conceptualizing and Measuring the Organizational Environment: a Multi-Dimensional Approach. *Journal of Management*, **17**, 681 – 700.
- Shepherd, D.A. & De Tienne, D.R. 2005. Prior Knowledge, Potential Financial Reward, and Opportunity Identification. *Entrepreneurship Theory and Practice*, **29** (1), 91–112.
- Schmidt, F. & Hunter, J. 1998. The Validity and Utility of Selection Methods in Personnel Psychology: practical and Theoretical Implications of 85 Years of Research Findings. *Psychological Bulletin*, **124**, 262–274.
- Shaver, K.G. 2003. The Social Psychology of Entrepreneurial Behaviour, in Z.J. Acs and D.B. Audretsch (eds.), *Handbook of Entrepreneurship Research*, Dordrecht: Kluwer Academic Publishers, 331-57.
- Singh, N.P. & Singh, K. 1972. Risk-taking among Agricultural and Business Entrepreneurs of Delhi. *Psychologia*, **15**, 175-180.
- Small, R. & Basardien, F. 2008. *Impact of a Government Support Programme to SMEs in the Western Cape*. The 10th Annual Conference International Entrepreneurship Forum. Ahmadabad, India, 15 – 17 Dec 2008.
- Smith, E. & Perks, S. 2006. Training interventions needed for developing Black Entrepreneurial Skills in the Informal Sector. *Journal of Contemporary Management*, **9** (1), 41 – 56.

- Smith, J.K. & Smith, R.L. 2000. *Entrepreneurial finance*. New York: Wiley.
- Smith, P.B. 2000. Nature over Nurture: Temperament, Personality, and Life Span Development. *Journal of Personality and Social Psychology*, **78** (1), 173-186.
- Snyder, L.W. 2008. Entrepreneurship as a Social Change. *New England Journal of Entrepreneurship*, **11** (2), 67-68.
- Solow, R. 1956. A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics*, **70** (1), 65–94.
- Spencer, A., Kirchoff, B. & White, C. 2008. Entrepreneurship, Innovation and Wealth Creation. *International Small Business Journal*, **26** (1), 9-26.
- Stam, W. & Elfring, T. 2006. *Entrepreneurial Orientation and New Venture Performance: the Mediating Effect of Network Strategies*. Academy of Management Proceedings.
- Statistics South Africa. 2004. *Statistics of Economic Growth Rates March 2004*.
- Steinkellner, P.F., Zehetner, K. & Czerny, E.J. 2011. *The contribution of psychological entrepreneurship research for management education*. Research-based paper to be presented at the International Conference on Management Learning "Management Makes the World Go Around" organized by the M/O/T school for Management, Organizational Development and Technology Vienna, Austria, December 1-4, 2010.
- Stewart, W.H. & Roth, P.L. 2001. Risk Propensity differences between Entrepreneurs and Managers: a Meta-Analytic Review. *Journal of Applied Psychology*, **86** (1), 145 – 153.
- Tabachnick, B.G. & Fidell, L.S. 2007. *Using Multivariate Statistics (5th ed.)*. Boston: Allyn & Bacon.
- Tett, R.P., Steele, J.R. & Beauregard, R.S. 2003. Broad and Narrow Measures on Both Sides of the Personality-Job Performance Relationship. *Journal of Organizational Behavior*, **24**.
- Themba, M. 1999. *Making Policy, Making Change: how Communities are taking the law into their Own Hands*. Berkeley: Chardon Press.

- Thomas, A.S. & Mueller, S.L. 2000. A Case for Comparative Entrepreneurship: assessing the Relevance of Culture. *Journal of International Business Studies*, **31**, 287–308.
- Thorpe, R., Holt, R., Macpherson, A. & Pittaway, L. 2005. Using knowledge within small and medium-sized firms: a systematic review of the evidence. *International Journal of Management Reviews*, **7** (4), 257–281.
- Thornton, P.H. & Flynn, K.H. 2003. Entrepreneurship, Networks and Geographies. In Acs, Z. & Audretsch, D. (eds.). *Handbook of Entrepreneurship Research*. Dordrecht: Kluwer Academic Publishers.
- Timmons, J.A. 1978. Characteristics and Role Demands of Entrepreneurship. *American Journal of Small Business*, **3** (1), 5-17.
- Unger, J.M., Keith, N., Hilling, C., Gielniek, M.M. & Frese, M. 2009. Deliberate Practice among South African Small Business Owners: relationships with Education, Cognitive Ability, Knowledge and Success. *Journal of Occupational and Organizational Psychology*, **82**, 21–44.
- Urban, B. 2008. The Prevalence of Entrepreneurial Orientation in a Developing Country: juxtapositions with Firm Success and South Africa's Innovation Index. *Journal of Developmental Entrepreneurship*, **13** (4), 425–443.
- Van Broembsen, M., Wood, E. & Herrington, E. 2005. *Global Entrepreneurship Monitor, South African Report*. [Online] Available: <http://www.gemconsortium.org/docs/download/601>. Accessed: 10 October 2009.
- Van der Sluis, J., Van Praag, M. & Van Witteloostuijn, A. 2005. *Why are the returns to education higher for entrepreneurs than for employees?* Working Paper, University of Amsterdam.
- Van Dyck, C., Frese, M., Baer, M. & Sonnentag, S. (in press). Organizational Error Management Culture and its Impact on Performance: A two-study replication. *Journal of Applied Psychology*.

- Van Eeden, S.M., Louw, L., Bosch, J.K. & Venter D. 2003. *Entrepreneurial traits of undergraduate students at selected tertiary institutions in South Africa*. ISCB conference, Brisbane, Australia, 7 – 10 June.
- Van Gelder, J.L., De Vries, R.L., Frese, M. & Goutbeek, J.P. 2007. Differences in Psychological Strategies of Failed and Operational Business Owners in the Fiji Islands. *Journal of Small Business Management*, **45** (3), 388 – 400.
- Van Gelderen, M., Frese, M. & Thurik, R. 2000. Strategies, Uncertainty and Performance of Small Business Start-ups. *Small Business Economics*, **15**, 165-181.
- Van Vuuren, J. & Nieman, G. 1999. Entrepreneurship Education and Training: a Model for Curriculum/ Syllabi Design. In Raffa, M. (ed.). *Proceedings of the 44th World Conference of the International Council for Small Business (ICSB)*.
- Varadarajan, P.R. 1996. From the Editor: reflections on Research and Publishing. *Journal of Marketing*, **60** (October), 3–6.
- Vesper, K. 1980. *New Venture Strategies*. Englewood Cliffs, NJ: Prentice Hall.
- Waldinger, R., Aldrich, H. & Ward, R. 1990. *Ethnic entrepreneurs*. Newbury Park, California: Sage.
- Wang, C.K. & Wong, P.K. 2004. Entrepreneurial Interest of University Students in Singapore. *Technovation*, **24** (2), 163-172.
- Weick, K.E. Patterns of Multidimensionality among Embedded Network Ties: A Typology of Relational Embeddedness in Emerging Entrepreneurial Firms. *Strategic Organisation Journal*, **1**, 9-49.
- Wennekers, S. & Thurik, R. 1999. Linking Entrepreneurship and Economic Growth. *Small Business Economics*, **13**, 27-55.
- Wiesner, W.H. & Cronshaw, S.F. 1988. A Meta-Analytic Investigation of the impact of Interview Format and Degree of Structure on the Validity of the Employment Interview. *Occupational and Organizational Psychology*, **61**, 275-290.

- Wickham, P. 2004. *Strategic Entrepreneurship*. Essex: Pearson Education.
- Wicklund, J. 1998. Entrepreneurial Orientation as Predictor of Performance and Entrepreneurial Behavior in Small Firms. In Reynolds, P.D., Bygrave, W.D., Carter, N.M., Manigart, S., Mason, C.M., Meyer, G.D. & Shaver, K.G. (eds.). *Frontiers of Entrepreneurship Research*. Babson Park, MS: Babson College, 281-296.
- Wiklund, J. & Shepherd, D. 2005. Entrepreneurial Orientation and Small Business Performance: A Configurational Approach, *Journal of Business Venturing*, **20**, 71-91.
- Wong, P.K., Ho, Y.P. & Autio, E. 2005. Entrepreneurship, innovation and economic growth: evidence from GEM data. *Small Business Economics*, **24**, 335-350.
- World Energy Technology Conference 2010*. New Delhi, India, 18 – 20 March 2010.
- Yusuf, A. & Saffu, K. 2005. Planning and Performance of Small and Medium Enterprise Operators in a Country in Transition. *Journal of Small Business Management*, **43** (4), 480-497.
- Zahra, S.A., Jennings, D.F. & Kuratko, D.F. 1999. The Antecedents and Consequences of Firm-Level Entrepreneurship: the State of the Field. *Entrepreneurship Theory and Practice*, **Winter**, 45-65.
- Zahra, S.A. & Pearce, J.A. 1990. Research Evidence on the Miles-Snow Typology. *Journal of Management*, **16** (4), 751-768.
- Zahra, S.A. 1991. Predictors and Financial Outcomes of Corporate Entrepreneurship: an Exploratory Study. *Journal of Business Venturing*, **6**, 259 – 285.
- Zahra, S. A., Nielsen, A. P., & Bogner, W. C. (1999). Corporate Entrepreneurship, Knowledge, and Competence Development. *Entrepreneurship Theory and Practice*, **23**(3), 169 – 189.
- Zhao, H. & Seibert, S.E. 2006. The Big Five Personality Dimensions and Entrepreneurial Status: a Meta-Analytical Review. *Journal of Applied Psychology*, **91** (2), 259 – 271.
- Zhao, Y. 1989. *Personality*. Taipei: Sanmin Publishing Co., Ltd.

Zhao, H., Seibert, S.E. & Hills, G.E. 2005. The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions. *Journal of Applied Psychology*, **90**, 1265–1272.

Zhou, M. 2004. Revisiting ethnic entrepreneurship: convergencies, controversies, and conceptual advancements. *Int Migr Rev*, **38** (3), 1040–1074.

Zimmer, R.K. & Gray, J.C. 1985. Budget Control Assimilation in Small and Medium-Sized Firms. *Managerial Planning*, **22** (3), 9-14.

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APPENDIX A

Table 4.1: Factor Analysis – Process Characteristics

Factors	Initial	Extraction
Planning	1.000	.725
Time	1.000	.811
Proactiveness	1.000	.805
Knowledge	1.000	.854
Goal difficulty	1.000	.643
Goal measurability	1.000	.788
Goal specificity	1.000	.818
Responses	1.000	.825

Extraction Method: Principal Component Analysis.

Table 4.2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.269	78.360	78.360	6.269	78.360	78.360
2	.636	7.950	86.310			
3	.456	5.704	92.014			
4	.231	2.893	94.907			
5	.149	1.863	96.770			
6	.119	1.484	98.254			
7	.088	1.094	99.348			
8	.052	.652	100.000			

Extraction Method: Principal Component Analysis.

Table 4.3: Component Matrix^a

Factors	Component
	1
Planning	.851
Time	.901
Proactiveness	.897
Knowledge	.924
Goal difficulty	.802
Goal measure	.888
Goal specificity	.905
Responses	.908

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 4.4: Factor Analysis – Entrepreneurial Orientation

Factors	Initial	Extraction
innovation	1.000	.587
risk-taking	1.000	.731
learning	1.000	.738
personal initiative	1.000	.636
autonomy	1.000	.824
need for achievement	1.000	.774

Extraction Method: Principal Component Analysis.

Table 4.5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.289	71.477	71.477	4.289	71.477	71.477
2	.861	14.349	85.827			
3	.439	7.313	93.140			
4	.319	5.314	98.454			
5	.060	.997	99.451			
6	.033	.549	100.000			

Extraction Method: Principal Component Analysis.

Table 4.6: Component Matrix^a

Factors	Component
	1
innovation	.766
risk-taking	.855
learning	.859
personal initiative	.797
autonomy	.908
need for achievement	.880

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 4.7: Factor Analysis – Entrepreneurial Success

Factors	Initial	Extraction
Growth success	1.000	.514
Subjective success	1.000	.473
Client growth success	1.000	.578
External success	1.000	.552

Extraction Method: Principal Component Analysis.

Table 4.8: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.116	52.902	52.902	2.116	52.902	52.902
2	1.740	43.492	96.394			
3	.085	2.114	98.508			
4	.060	1.492	100.000			

Extraction Method: Principal Component Analysis.

Table 4.9: Component Matrix^a

Factors	Component
	1
Growth success	.82
Subjective success	.80
Client growth success	.86
External success	.84

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 4.10: Factor Analysis – Environment

Factors	Initial	Extraction
Environment1	1.000	.674
Environment2	1.000	.676
Environment3	1.000	.753
Environment4	1.000	.842
Environment5	1.000	.782
Environment6	1.000	.776

Extraction Method: Principal Component Analysis.

Table 4.11: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.503	75.053	75.053	4.503	75.053	75.053
2	.526	8.767	83.821			
3	.358	5.966	89.786			
4	.284	4.739	94.525			
5	.186	3.100	97.625			
6	.143	2.375	100.000			

Extraction Method: Principal Component Analysis

Table 4.12: Component Matrix^a

Factors	Component
	1
Environment1	.821
Environment2	.822
Environment3	.868
Environment4	.918
Environment5	.884
Environment6	.881

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 4.13: Communalities

Factors	Initial	Extraction
Cashbook	1.000	.479
Accounting system	1.000	.754
Inventory	1.000	.712

Extraction Method: Principal Component Analysis.

Table 4.14: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.945	64.829	64.829	1.945	64.829	64.829
2	.695	23.175	88.003			
3	.360	11.997	100.000			

Extraction Method: Principal Component Analysis

Table 4.15: Component Matrix^a

Factors	Component
	1
Cashbook	.792
Accounting system	.868
Inventory	.844

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Table 4.16: Advanced Financial Management

Factors	Initial	Extraction
Cashman	1.000	.524
Budgeting	1.000	.946
Cashproj	1.000	.859
Pricing	1.000	.909

Extraction Method: Principal Component Analysis.

Table 4.17: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.238	80.961	80.961	3.238	80.961	80.961
2	.568	14.208	95.169			
3	.163	4.075	99.244			
4	.030	.756	100.000			

Extraction Method: Principal Component Analysis.

Table 4.18: Component Matrix^a

Factors	Component
	1
Cashman	.724
Budgeting	.972
Cashproj	.927
Pricing	.954

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

APPENDIX B

Interview of small scale business entrepreneurs / business owners in the Western Cape, South Africa 2007/2008

Fawzy Basardien, PhD student, Cape Town

Start / Introduction

- "Can I talk to the owner?"
- "For how long do you own this business now?"
- "Can you tell me, how many employees you employ here in this business?" (Min. 1 employee, max. 50 employees)

"I would like to ask you to participate in a research project on business owners. I am interested in how owners of a small business run their business. Of particular interest is how you make decisions. It is not only about financial issues. I am also interested in how you go about things, for example, deal with employees, make decisions about your products, marketing, etc."

"All of the information that you give will be kept absolutely confidential."

"The interview will take about 2 hours. All of those interviewed found it interesting to participate, because it gives you a chance to think about how you have done things and it may give you ideas of how to be more effective in the future. If you are interested in the results, I will send you a short report of the research once completed."

Before you begin

- make sure that background sounds are reduced as far as possible.
- note: - the subject number (your personal number plus running number of this person) on all pages of your notes!

- your name
- date
- time of interview start and after you've finished the time of interview end
- questions marked with **(F)**: Fact information, no detailed report necessary
- questions marked with **(D)**: Detailed description of the subject's words necessary – also and particularly his / her examples.

1. General Information

1.0.1 **(F)** What is your first language (Afrikaans, English, Xhosa, Zulu etc.) ?

1.1 **(F)** Are you the owner of this business?

1.1.1 **(F)** Are there any other owners?

1.2 **(F)** Did you start this business yourself?

1.3 **(F)** When did you start your business?

1.4 **(F)** How many employees do you have at the moment?

1.4.1 **(F)** How many of your employees are full-time employees?

1.4.2 **(F)** How many are from your extended family?

If you notice that the business doesn't exist for at least one year or the owner doesn't have a minimum of one employee, **stop** the interview at this point. Sometimes it may be useful to actually see the employee or ask the employee as well.

1.5 **(D)** Which line of business are you in (manufacturing, construction, trade, transport, services, other) ?

Please describe your products.

1.6.1 (F) How many hours do you work per week?

1.6.2 (F) How many months do you work per year?

1.7 (F) How much money did you have to start your business unit?

1.7.1 (F) How much of that was your own?

1.8.1 (F) Are you a member of the chamber of commerce?

1.8.2 (F) Are you member of a co-operative?

1.8.3 (D) Are you member of any other association society or club that helps you to enhance your business? Please specify.

1.9 (F) Do you have a written business plan? If "no" got to 2.1

1.9.1 (D) What time period does your business plan cover?

2. Human Capital

2.1 (F) For how many years did you go to school?

2.1.1 (F) What's your highest degree of formal education?

2.1.2 (F) Have you ever received training concerning entrepreneurship or self-employment?

2.2 (F) Were you already self-employed before you started this business?

If "no" got to 2.3

2.2.1 (F) Were you self-employed in the same line of business?

2.3 (F) Were you employed before you started this business? If "no" got to 2.4

2.3.1 (F) What positions did you hold before you started this business?

2.3.3 (F) Was the employment in the same line of business?

2.3.4 (F) Do you have any managerial experience?

2.3.5 (F) Did you attend any training programmes related to your work as a manager?

2.4 (F) Were you ever employed while you were a business owner?

2.5 (F) Is there any other person in the family, who is a business owner as well?

2.6.1 (F) Think of the time when you made the decision to become a business owner. Was there a threat to become unemployed?

2.6.2 (F) Did you become a business owner because of that?

2.7 (F) What is your age?

3. Targets, Goals, Strategies

"In the following we are interested in your goals for your business (What are you most interested in? What targets do you have? What do you want to achieve in your business?).

We have written down a number of goals that have been shown to be important. We would like to know **which ones are most important for your business** and which ones are least important. Please place these cards in an order of importance. Start with the most important one, then select the second most important one, etc.

Write down the ranking of the cards: G1 "show initiative", G2 "new marketing strategy",

G3 "improve...", G4 "perform better than competitors", G5 "expanding", G6 "make more profit".

In the following, discuss the two most important goals (no.1 and no.2) in detail with regard to goal specificity, goal difficulty, and strategy.

3.1 **(D)** Can you tell me a bit more about your goals in this area (**point to goal no.1**); what do you want to achieve in this area? What do you aim for?

Be sure not to suggest any specificity! If no answer, repeat the question twice - "what question".

3.1.3 **(D)** Do you think this is a goal which is difficult to achieve or is it easy to achieve (prompt: Do you think that your competitors have easier or harder ones?)?

Don't stop until you know how specific and how difficult the goal is!

In the following discuss the strategies of goal no.1 in detail. You need to know:

- any / how much planning
- how much proactiveness
- how much goal specificity, goal measurability, goal difficulty
- how much situational responsiveness
- how much reactivity, so you can make a decision on "reactive", "opportunistic", "complete planning", and "critical point planning".

3.3.1-10 **(D)** You have said:... (**repeat the goals and sub goals S has developed**). How do you go about to achieve this goal / these goals? or How do you reach this goal? or How do you do it?

(D) What have you already done to achieve this goal (possibly ask this question twice; ask for examples)?

(D) How have you done this in the past?

Ask for concreteness, realism, planning and proactiveness **prompts:** What do you mean by?
Can you give me an example? Can you give me an example for ...? Do you

want to do it differently in the future, how? **general prompt:** repeat what S just said.

Don't say e.g. "Are you planning this in detail?" **Don't stop until you know, which strategy is used here** (opportunistic, critical point, complete, reactive)

Now the same for goal no.2

3.1 **(D)** Can you tell me a bit more about your goals in this area (**point to goal no.2**); what do you want to achieve in this area? What do you aim for?

Be sure not to suggest any specificity! If no answer, repeat the question twice - "what question".

3.2.3 **(D)** Do you think this is a goal which is difficult to achieve or is it easy to achieve (prompt: Do you think that your competitors have easier or harder ones?)?

Don't stop until you know how specific and how difficult the goal is!

In the following discuss the strategies of goal no.2 in detail. You need to know:

- any / how much planning
- how much proactiveness
- how much goal specificity, goal measurability, goal difficulty
- how much situational responsiveness
- how much reactivity, so you can make a decision on "reactive".

3.4.1-10 **(D)** You have said:... (**repeat the goals and sub goals S has developed**). How do you go about to achieve this goal / these goals? or How do you reach the goal? or How do you do it?

(D) What have you already done to achieve this goal (possibly ask this question twice; ask for examples)?

(D) How have you done this in the past?

Ask for concreteness, realism, planning and proactiveness **prompts:** What do you mean by? Can you give me an example? Can you give me an example for ...? Do you want to do it differently in the future, how? **general prompt:** repeat what S just said.

Don't say e.g. "Are you planning this in detail?" **Don't stop until you know, which strategy is used here** (opportunistic, critical point, complete, reactive).

4. FINANCIAL MANAGEMENT ADMINISTRATION AND PRACTICES

Basic Financial Management Practices

1. Do you keep source documents from the transactions that take place?
2. Are these documents systematically managed and filed?
3. Do you have a debtors or credit management system?
4. Do you produce bank reconciliations and operating summaries?
5. Do you maintain a cash book (record of cash that comes in and out of the business)?
6. Do you maintain records of accounts receivable (money owed to the business)?
7. Do you maintain records of accounts payable (money owed by the business)?
8. Do you maintain a record of inventory?

Advanced Financial Management practices

9. Do you produce traditional financial statements (balance sheet, income statement etc.)?
10. Are your financial statements prepared on a quarterly basis?
11. Do you have a cash budget showing amounts and timing of cash disbursements and cash receipts day-by-day, week-by-week or month-by-month?
12. Do you have a cash flow projection in place?
13. Do you compare actual cash flows with your projections (variance analysis)?
14. Is the above information used to plan for future expenditure (cash flow management)?
15. Do you utilise your financial information to perform ratio analysis?

5. ENTREPRENEURIAL ORIENTATION

Personal initiative

	Very seldom	Seldom	Medium	Often	Very often
I actively approach problems. (Ini1)					
Whenever something goes wrong, I search for a solution immediately. (Ini2)					
Whenever there is a chance to get actively involved, I take it. (Ini3)					
I take initiative immediately even when others do not. Ini4					
I use opportunities quickly in order to attain my goals. (Ini5)					
Usually I do more than I am asked to do. (Ini6)					
I am particularly good at realising ideas. (Ini7)					

Risk-taking orientation

Do the following statements apply to you?	Applies not at all to me	Applies a little to me	Medium	Applies a lot to me	Applies definitely to me
I am not willing to take risks when choosing a job or a company to work for. (risk 1)					
I prefer a low risk/high security job with a steady salary over a job that offers high risks and rewards. (risk 2)					
I prefer to remain on a job that has problems that I know about rather than take the risk of working at a new job that has unknown problems even if the new job offers greater rewards. (risk 3)					
I view risk on a job as a situation to be avoided at all cost. (risk 4)					
I am keen to venture into the unknown. (risk 5)					
I am prepared to commit substantial assets and to borrow heavily to start a business. (risk 6)					
I am a firm believer in 'all or nothing'. (risk 7)					
Life assurance policies should be taken out as early as possible. (risk 8)					

Innovative orientation

	Very seldom	Seldom	Medium	Often	Very often
I constantly search for new ways to change my products/services. (inno1)					
During the last 12 months I introduced new methods of production. (inno2)					
During the last 12 months I created new markets for my products/services. (inno3)					
I intend to change the product/service mix over the next 12 months. (inno4)					
I often surprise people with my novel ideas. (inno5)					
I like to experiment with various ways of doing the same thing. (inno6)					
I believe it is important to approach business opportunities in unique ways. (inno7)					

Innovativeness and Initiative

5.1 **(D)** Do you plan to change your product-mix or service-mix within the next six months or year? In what way? If "no", go to 6.2.

5.1.1 **(D)** Why do you plan to change your product mix?

5.2 **(D)** During the last two years, did you have a good or creative or innovative idea with regard to your business? What was this idea (repeat if no answer or **prompt:** I mean an idea where you said to yourself: Yes, that was a really good idea - it helps my business)?

If "no", go to 4.3

5.2.3 / 5.2.4 (D) Was this your own idea or did you get it from someone else? Where did you get it from?

5.3 (D) "Now, I will present you a number of difficult situations. Tell me, what one could do in such a situation; use your creativity."

Learning Orientation

Do the following statements apply to you?	Not at all	A bit	Neither a bit, nor a lot	A lot	Totally
When I have made a mistake, I know immediately how to correct it. Learn1	() 1	() 2	() 3	() 4	() 5
When I do something wrong at work, I correct it immediately. Learn2	() 1	() 2	() 3	() 4	() 5
If it is at all possible to correct a mistake, then I usually know how to go about it. learn3	() 1	() 2	() 3	() 4	() 5
I don't let go of the goal, although I may make mistakes. learn4	() 1	() 2	() 3	() 4	() 5
I find it stressful when I err. Learn5	() 1	() 2	() 3	() 4	() 5
I am often afraid of making mistakes. Learn6	() 1	() 2	() 3	() 4	() 5
I feel embarrassed when I make an error. Learn7	() 1	() 2	() 3	() 4	() 5
If I make a mistake at work, I "lose my cool" and become angry. Learn8	() 1	() 2	() 3	() 4	() 5
While working I am concerned that I could do something wrong Learn 9	() 1	() 2	() 3	() 4	() 5

Need for Achievement

Do the following statements apply to you?	Not at all	A bit	Neither a bit, nor a lot	A lot	Totally
nach1 Working is something:	() I would rather not do ()	() I don't like doing very much	() I would rather do now and then	I like doing ()	I like doing very much
nach2_r Other people think I:	() work very hard	() work hard	() work pretty hard	() don't work very hard	() don't work hard
nach3_r At school they thought I was:	() very diligent	() diligent	() not always so diligent	() rather easygoing	() very easygoing
nach4_r I usually am:	() very busy	() busy	() not so busy	() not busy	() not busy at all
nach5 When doing something difficult:	() I give up very quickly	() I give up quickly	() I give up rather quickly	() I don't give up too soon	() I usually see it through
nach6_r If I have not attained my goal and have not done a task well then:	() I continue to do my best to attain the goal	() I exert myself once again to attain the goal	() I find it difficult to not lose heart	() I'm inclined to give up	() I usually give up
nach7_r I usually do:	() much more than I resolved to do	() a bit more than I resolved to do	() about as much as I resolved to do	() a little less than I resolved to do	() much less than I resolved to do

Autonomy

In the following, please indicate on this scale for each pair of statement of business owners, which of the statements applies most to you.

exactly like A	more like A	more like B	exactly like B
()	()	()	()
1	2	4	

1)auton1

Business owner A:

"I am satisfied as long as my business provides a living for my family and myself."

Business owner B:

"I am satisfied as long as my business keeps growing and becomes bigger."

2)auton2

Business owner A:

"I just do this business as long as I cannot find another, better job."

Business owner B:

"I really like to be a business owner on my own: I don't want another job."

3)auton3

Business owner A:

"If I earn enough money for my family, that is good enough."

Business owner B:

"I want my business to grow as much as possible." 8)moti2_r

Business owner A:

"I am really interested in what I do now as a business owner; I would not like to do anything else."

Business owner B:

"I don't care what exactly I work on as long as I earn money with it."

6. Overcoming Barriers

Present the first barrier of the first situation.

When the barrier is overcome, reply: "Pretend for a moment that this does not work."

If the subject is not satisfied with this, give a more specific barrier. Be sure that S accepts the problem as a problem.

If a barrier is not overcome, don't present a new barrier. Repeat the question / barrier again. If there is no answer, don't go further, but start with a new situation. The same applies when the subject repeats (a bit of a variation) of a previous solution.: e.g. the first solution was "I ask the supervisor for help", after the subsequent barrier the subject answers "I look for another supervisor". Ask for a different solution "What else can one do?". If no new solution comes up, stop and start with a new situation.

Repeat the whole procedure 4 times max. per scenario. If the fourth barrier of a situation is overcome, ask the subject: "Have you got any further ideas?"

Write a **detailed protocol** of subject's answers and your barriers. **Write down both your questions and the subject's answers!** After the interview, count on the basis of the protocol the number of barriers overcome.

0	1("pretend this doesn't work...")	2 ("pretend this doesn't work...")	3("pretend this doesn't work...")	4 ("pretend this doesn't work...")	5 ("any further ideas....")
No barrier overcome, refused to answer.	1 barrier overcome	2 barriers overcome	3 barriers overcome	4 barriers overcome	5 or more barriers overcome

6.1 **(D)** Pretend for a moment that you are out of money and that you cannot buy the necessary supplies. What do you do (also important: activeness)?

6.2 **(D)** Pretend for a moment that you are producing a product with a machine. This machine breaks down and your workers cannot fix it. What do you do (also important: activeness)?

6.3 **(D)** Pretend for a moment that your supplier for a certain item went out of business.

You are under high pressure to finish an order and he is the only one who can supply you with this necessary item. What do you do (also important: activeness)?

6.4 (D) Pretend for a moment that your landlord tells you to move your shop within two months. What do you do (also important: activeness)?

7. Difficulties / Problems and Environment

Now we'll talk about another area:

7.1 (D) If you could start your business again as you did in the year ..., what would you do differently? (also important: concreteness, evidence of learning)

7.2 (D) How do you make sure that everything is going well in your business? That your business is running well and prospering?

7.3 business environment: In the following we would like to know, what you think of your business environment.

Use **answer sheet A** and record each answer. Explain what the numbers 1 to 5 mean on the answer sheet.

7.3.1 simplicity/complexity

7.3.2 hostility & friendliness

7.3.3 stability & predictability

7.3.4 controllability

7.4 (D) What do you think is your main advantage in the market in comparison to your competitors? (important here: concreteness, answered to the point, how strong an advantage)

8. Success

Before starting: assure the subject of confidentiality!!

Client Growth

8.1 (F) Has the number of customers from 200X to 200X increased, decreased, or did it stay the same (same procedure for the comparison of each set of years)?

8.2 (F) Compared to last year, has the number of your customers increased or decreased (%)?

8.3 (F) Has the number of customers increased over the last 3 years?

8.3 (F) Have the sales from 200X to 200X increased, decreased, or did they stay the same (same procedure for the comparison of each set of years)?

Profit Growth

8.4 (F) Has your profit from 200X to 200X increased, decreased, or did it stay the same (same procedure for the comparison of each set of years)?

8.5 (F) Compared to last year, has your profit increased or decreased (%)?

8.6 (F) Has your profit increased or decreased during the last 3 years? (%)

Sales Growth

8.5 (F) Has your sales from 200X to 200X increased, decreased, or did it stay the same (same procedure for the comparison of each set of years)?

8.6 (F) Compared to last year, has your sales increased or decreased (%)?

8.7 (F) Has your sales increased or decreased during the last 3 years (%)?

Subjective Success

8.8 (F) Do others say you are successful?

8.9 (F) How successful are you as a business owner compared to your competitors?

9 (F) How satisfied are you with your work as a business owner (□...□... ☺)?

9.1 (F) How satisfied are you with your current income (□...□... ☺)?

9.2 (D) During the last year did you ask somebody to help you out with money for your business?

9.3 (D) During the last year could you always pay your employees the usual money or did you have to reduce it, delay it, or could you sometimes not pay? If "no", go to 9.16.

9.4 (F) How often did that happen?

9. ENVIRONMENT

1) Simplicity vs. Complexity

cmplx

The environment can be seen as complex if a lot of things have to be taken into consideration and a lot of information is needed to do business (How difficult does your environment make it for you to decide something?). Can you show me on this scale, how complex your environment is?

very simple							very complex
1	2	3	4	5	6	7	

2) Hostility vs. Friendliness

hostil

The environment can be seen as hostile, if there is a lot of pressure from competitors. Can you show me on this scale how hostile your environment is?

very little hostile							very hostile
1	2	3	4	5	6	7	

friend

The environment can be seen as friendly, if there are a lot of possibilities to do business and make investments. Can you show me on this scale, how friendly your environment is?

Very little friendly							very friendly
1	2	3	4	5	6	7	

Can you show me on this scale how you would characterise the external environment within which your firm operates?

safe

Very safe, little threat to the survival of my firm. hostil1	(1) (2) (3) (4) (5) (6) (7)	Very risky, a false step can mean my firm's undoing.
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rich

Rich in investment and marketing opportunities. hostil2	(1) (2) (3) (4) (5) (6) (7)	Very stressful, exacting, hostile;
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3) Stability vs. Dynamics

dynamic

The environment can be seen as dynamic, if it changes fast and future developments cannot be foreseen. Can you show me on this scale how dynamic your environment is?

very little dynamic	(1) (2) (3) (4) (5)	very dynamic
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sucoth

1) How successful do you think others say you are as a business owner?

not at all successful () 1	not that successful () 2	medium successful () 3	somewhat successful () 4	very successful () 5
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sucsel

2) How successful are you as a business owner compared to your competitors?

not at all successful () 1	not that successful () 2	medium successful () 3	somewhat successful () 4	very successful () 5
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satwor

3) How satisfied are you with your work as a business owner?

1	2	3	4	5
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satinc

4) How satisfied are you with your current income?

1	2	3	4	5
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10. Other Issues

10.1 I would like to ask to give us your address: In no case will anybody else be informed about anything you told us - it's completely confidential. When you give us your address, we can send you a report on our results in about a year. Actually we would also like to visit you again in about 1½ years and find out how you have done in the meantime (**Note down address!**).

10.2 Do you know a small business owner here in the area who is particularly successful?

What is his/her name (**Note down address and try to interview this person, but make sure that these people do not constitute more than ¼ of your interviewed group**)?

10.3 Is it OK with you to ask a third person about your business (assure confidentiality again; show questionnaire if necessary)?

Note down the end of interview time!

10.4 Give out the questionnaire.

10.5. Additional Observations

Write down **additional observations** during the time S fills in the questionnaire.

Also fill in **interviewer evaluation** and **review** your own notes for completeness.