Chapter 2: Factors affecting SME success

2.1 Introduction

This chapter is a literature analysis aimed at reviewing local and international research to identify the set of skills that are important for SME success and growth. The chapter starts with a brief discussion of all the factors that have been identified as crucial for SME success, in order to give a background to the importance of skills in entrepreneurship. The chapter defines those skills identified in literature as likely to influence SME survival and growth, as well as how the lack of skills can constrain SME development and ultimately lead to the failure of SMEs. Based on the exploratory study, the chapter presents a model of SME-skills fit and venture success. This model is then translated into the propositions which this research study will prove or fail to prove.

Given the vast amount of literature on venture success/survival/failure (Gartner et al, 1999:216), this chapter should not be regarded as a comprehensive review but merely as serving to highlight the importance of issues relating to the research topic. The focus of this literature review, then, is to outline the logic used for the selection of questions/variables for the research questionnaire. To determine the concepts to be included in the theory of the study, a comprehensive number of text books and articles were reviewed. The relevant literature is in leading academic journals and annual conference proceedings in such disciplines as marketing, entrepreneurship, management, social psychology, economics, organization behaviour and organization theory.

This study limits itself to factors specific to aspects of the functions of a business; it attempts to identify those factors which strong empirical links to entrepreneurial success. The factors identified were divided into the following:

- Factors listed in published articles and books that list skill factors from other studies.
- Factors listed in published articles that show strong evidence linking the skill factor to entrepreneurial success.
- Factors listed in published articles that link training and the said skill factors.
- Factors that are cited by professionals in entrepreneurship models, theories and theorems.

From this review the researcher drew up a range of possible skills that could be determinants of success, and of those whose lack could be a barrier to SME success. The factors were evaluated for inclusion and a semi-structured questionnaire constructed and used as the research instrument.

The chapter is structured under of four sections:

- Section 1 investigates the exogenous factors that influence the entrepreneurial process. This is basically a brief discussion of the external factors listed in table 1.1 in chapter 1.
- Section 2 investigates the endogenous factors that influence the entrepreneurial process. This is basically a brief discussion of the internal factors listed in table 1.1 in chapter 1.
- Section 3 reviews eight models on entrepreneurship performance and gives a combined model that links components of skills to business success/failure. This model provides guidelines for selecting the skills that the SMEs are requested to rank in the survey questionnaire.
- Section 4 is a conclusion that links the presented model to the propositions the research seeks to prove.

2.2 The external/exogenous factors

Simpson et al (2004:484) defines the macro-environment as containing factors external to the company that present situational variables which may facilitate or inhibit entrepreneurship at start-up and during the SME lifecycle. This is supported by Dahlqvist et al, (2000:5) who expounds that these external factors present opportunities, threats and information affecting all entrepreneurs within that environment, regardless of their background, education or business concept. Guzman & Santos (2001:217) lists external factors to include socio-demographics, markets (local, international, emerging and established markets), cultural, economic, political, institutional, legal, productive, technological, infrastructure and other physical factors of that particular environment. Mazzarol, Volery, Doss & Thein (1999:50) and Viviers et al (2001:4) point out that these macro environmental factors are not controllable and the success of the SME often depends on management's ability to deal with them.

Peberdy and Rogerson (2000:21) argue that the success of a new venture depends on the state of specific factors within the boundaries of specific nation-states with their own distinct economic, political and social factors. Toye (2002:49) agrees and highlights that these

factors have implications for education and skill bases; levels of risk; access to markets; and access to resources including inputs, labour, subcontractors and expertise, networks, capital and finance. This influences the SME's chances of marginal survival or high performance (Dahlqvist et al, 2000:5).

The study groups external factors into two categories: macro economics and market-environment issues. Macro-economics variables include all economic, socio-cultural, and political-institutional factors, whereas market environment includes all productive opportunities and market attractiveness factors.

2.2.1 Economic factors

The success of a new venture depends on the state of the national economy at the time the business is launched (Baron, 2004b:233; Ligthelm & Cant, 2002:5; Viviers et al, 2001:4; Nieman, 2006:22, Gurol & Atsan, 2006:28). Examples of the economic factors are discussed briefly below:

- **Enterprise Density**

Enterprise density is defined as the number of firms in a given population at a given time and refers to the percentage of existing and possible entrepreneurs (Panco & Korn, 1999:6). In South Africa the enterprise density is low at 2%, meaning there is room for expanding active enterprises, and this low density acts as a disincentive to firms to exit (van Vuuren & Nieman, 1999:2; GEM, 2005a:17).

- **Inflation**

Inflation has an effect on entrepreneurship (Viviers et al, 2001:4; Ligthelm & Cant, 2002:5). South Africa's inflation figure of 11% in mid 2008 means that value of wealth decreases, consumers tighten their belts and thus there are fewer opportunities for entrepreneurs.

- **Interest rates**

Low interest rates facilitate access to capital and thus resources required for entrepreneurship (Ligthelm & Cant, 2002:5). South Africa's high 15% prime interest rate (in mid 2008) limits both consumption rates and the amount of capital that can be raised (Viviers et al, 2001:4).

- **Unemployment**

Unemployment impacts on the entrepreneurship process (Viviers et al, 2001:4). Where there is high unemployment a lot of people are pushed into entrepreneurship for survival (Wickham, 2001:63; Dollinger, 1999:43); at the same time because of this high unemployment and limited earnings, markets are naturally limited (Ligthelm & Cant, 2002:5). South Africa's high unemployment rates mean that there is more people opting for self-employment yet spending power is limited.

- **Exchange rates**

Exchange rates are a major factor in entrepreneurship (Viviers et al, 2001:4; Ligthelm & Cant, 2002:5). South Africa's weak rand means that there is more opportunities inm the export market but that there is less capital for investing in local SMEs.

- **Taxation**

One of the key factors inhibiting SME development is taxation (Robertson et al, 2003:311). If tax rates are high they reduce the profit incentive drastically (Ahwireng-Obeng & Piaray, 1999:78). In South Africa costs associated with meeting VAT (Clover & Darroch, 2005:242) and corporate tax (Viviers et al, 2001:4) are among the highest in the world. The complexity of the tax system further raises the cost of doing business, as many SME do not have the capacity to administer tax returns and thus need to consult experts for a fee in order to meet these legal requirements (Luiz, 2002:65).

- **Change**

The ability to deal with change is a key factor in the success of SMEs (Viviers et al, 2001:4), as change and its related uncertainty are where market opportunities lie (Kirzner 1973; Knight, 1964). Change includes rapidly changing technology (Ligthelm & Cant, 2002:37) and changing market forces (Shane & Venkatarman, 2000:220). South Africa re-entry into the global economy after decades of international trade sanctions opened the floodgates of change (Morris & Zahra, 2000:92). Sadly most SMEs in South Africa lack the capacity to deal with a changing business environment (Strydom & Tustin, 2003:4) and are thus doomed to eventual extinction (Panco & Korn, 1999:7).

- **The business environment**

Positive features of the business environment of a country provide SMEs with opportunities, threats, information and access to role models (Hisrich & Peters, 2002:73; Guzman &

Santos, 2001:217; Henning, 2003:2), which are factors determining SMEs / entrepreneurial success (Pretorius et al, 2005a:55; Nasser et al, 2003:400). Too many shocks in the business environment, however, push risks to unacceptable levels (Themba et al, 1999:106). The challenge facing most governments is to provide a business environment that supports and promotes a vibrant entrepreneurial culture (OECD, 2002b:7). In South Africa entrepreneurs view the environment as unstable (Viviers et al, 2001:3; Morris & Zahra, 2000:96; Kangasharju, 2000:33).

2.2.2 Political-institutional factors

In developing nations, the political climate and legal requirements of doing business in a country can be a possible enhancer or a major stumbling block to the development of entrepreneurship (Themba et al, 1999:104). Examples of the political institutional factors are discussed briefly below:

- **Macro-economic policies**

Macro-economic policies, legislation, frameworks, regulations and laws are factors that can facilitate or hinder entrepreneurship development (Clover & Darroch, 2005:241; Dockel & Ligthelm, 2005:54). Appropriate trade, labour, investment and tax policies and regulations can give an enabling environment that encourages investment and sustainability of entrepreneurs as the new source of wealth and job creation in the economy (Themba et al, 1999:105; Ahwireng-Obeng & Piaray, 1999:78; Henning, 2003:2). On the other hand, a hostile external environment presents legal and regulatory constraints which stifle entrepreneurship and increase the costs of doing business (Finmark, 2006; Ligthelm & Cant, 2002:5). In South Africa some of the government regulatory laws are considered a threat to the SME sector (Viviers et al, 2001:3; Clover & Darroch, 2005:242).

Unavoidably, the challenge facing the new South African government is to institute enforceable rules, regulations and policies with the aim of promoting a national interest that includes the vibrancy of business enterprise (Ahwireng-Obeng & Piaray, 1999:79). Although some overregulation is still an issue, South Africa has seen significant trade deregulation that has supported entrepreneurship (Luiz, 2002:55).

- **The judiciary**

Reliability of the judiciary is important for entrepreneurial development, as it can provide legal protection against the infringement of intellectual property rights, enforce contractual obligations between parties, implement competition laws, as well as administer company law (Ahwireng-Obeng & Piaray, 1999:78). South Africa's judiciary system is considered to be strong thus affording businesses some type of protection.

- **Bureaucracy**

Bureaucratic corruption and red tape can significantly increase business costs, as well as the time spent negotiating with corrupt officials makes products and services uncompetitive in the market place (Ahwireng-Obeng & Piaray, 1999:78). There is a high level of bureaucracy in South Africa.

- **Costs of compliance**

Most SMEs feel they lack capacity to deal with government requirements in general (Strydom & Tustin, 2003:3; Rwigema & Venter, 2004:19). In South Africa the cost of compliance with legislation is high and is seen as a threat to the SME sector and entrepreneurship (Viviers et al, 2001:4; Ligthelm & Cant, 2002:5).

- **Public support**

The government's SME support programmes could ensure that SMEs get ongoing support in the form of knowledge and expertise to ensure growth of the business beyond the initial incubation and early survival (Nasser et al, 2003:399; Ligthelm & Cant, 2002:5). Lack of public sector support has a negative impact on entrepreneurship development in a country (Clover & Darroch, 2005:244).

In South Africa, while the support is typically provided in the form of incentive programmes or inducements to encourage the founding of new enterprises (Mueller & Thomas, 2001:67), many SMEs have no knowledge about existing government support mechanisms or how to access them (Finmark, 2006). Some SMEs find that services like grants or procurement opportunities are complicated, inflexible or inadequate for actual SME needs (Fielden et al, 2000:300; Luiz, 2002:56).

- **Political instability**

Regional political instability such as the war in the Congo, the political unrest in Zimbabwe, South Africa's political predominance in the region, a disintegrated regional economy and the instability of emerging markets all negatively affect the business environment, with many SMEs from the region flooding into SA and increasing competition for the local SMEs (Ahwireng-Obeng & Piaray, 1999:78).

2.2.3 Socio-cultural factors

Socio-cultural conditions reflect the country's stage of development. These social conditions and aspects of the country's culture may create environmental goodwill that benefits SMEs (Wasilczuk, 2000:93; Gurol & Atsan, 2006:28), or may present pressures that stifle entrepreneurship (Themba et al, 1999:108; Rogerson, 2001a:117; Tustin, 2001:126). Examples of socio-cultural factors are discussed briefly below:

- **Access to public infrastructure**

Access to public physical infrastructure services include water, electricity, serviceable roads, telecommunication, telephones, electronic media and postal services which are all crucial for business start-up, development and growth (Rogerson, 1999:137; Clover & Darroch, 2005:242; Ahwireng-Obeng & Piaray, 1999:78). Limited access to public infrastructure services is a major constraint to SME survival (Darroch & Clover, 2005:327; Luiz, 2002:56) and growth (Tustin 2001:126), as it limits operations and restricts access to markets and raw materials (Rogerson, 1999:137). Most SMEs in Johannesburg have access to public infrastructure.

- **Access to money/capital**

The availability of appropriate economic resources is important for business development (Tustin, 2003:126, Goodall, 2000a:15, Czinkota & Ronkainen, 2003:49). This enables SMEs to secure the necessary expertise and raw materials to put entrepreneurial ideas into practice, to be competitive, to survive during unfavourable conditions and to grow (Robertson et al, 2003:313; Wickham, 2001:71). The lack of capital and limited access to finance is a factor inhibiting entrepreneurship and influencing growth negatively, as it impedes the progress that comes from timeous application of resources (Nasser et al, 2003:399; Pretorius & Shaw, 2004:223; Rwigema & Venter, 2004:19; Davila, Foster & Gupta, 2003:700; Ligthelm & Cant, 2002:5).

For South Africa's disadvantaged societies, access to finance remains very limited, as financial institutions like banks are very conservative and risk averse. These financial institutions normally avoid SMEs that are considered risky and have no collateral or dependable track records (Mughan, Lloyd-Reason & Zimmerman, 2004:424; Leah & Tucker, 2000; Luiz, 2002:67). Most of those SMEs that are able to secure start-up finance find the cost of capital is too high (Rwigema & Venter; 2004:19).

- **Access to technology**

Globalization, technological sophistication, access to technology and technological discoveries have seen an increased numbers of businesses built on quality assurance, high-tech innovations and intellectual property (Nasser et al, 2003:399). SMEs need access to appropriate technology if they are to have competitive advantage (Rogerson, 2001a:117). Inability to secure technology at start-up can impact negatively on the entrepreneurship development process in today's world of globalization (Clover & Darroch, 2005:243; SME survey, 2003). For South Africa's disadvantaged societies, access to technology remains very limited (Themba et al, 1999:105; Robertson, 2003:461).

- **Access to labour**

Access to labour markets is a key factor of production crucial for entrepreneurship (Shane & Venkatarman, 2000:221; Thornhill & Amit, 2003:506), as it allows for appropriate expertise that enables ventures to explore identified opportunities (Nasser et al, 2003:399; Markman & Baron, 2003:285). In South Africa the labour is mainly unskilled and informal (Luiz, 2002:67) while the available semi-skilled and skilled labour is expensive (Ahwireng-Obeng & Piaray, 1999:78; Viviers et al, 2001:4).

- **Access to other economic resources**

Access to other economic resources like bankers, suppliers, lawyers, training and all intermediaries needed in the total value chain is imperative for entrepreneurial success (Hisrich & Peters; 2002:263; Nhlengethwa, 2003:1; Kodithuwakhu & Rosa, 2002:433). While such resources / services are easily available for SMEs in Johannesburg, many SMEs from previously disadvantaged backgrounds have limited access to such resources due to financial constraints.

- **Crime**

Low crime and security (Ahwireng-Obeng & Piaray, 1999:78) are prerequisite for the survival and growth of businesses. High levels of crime negatively affect investment levels, sales and business success (Strydom & Tustin, 2003:4; Ligthelm & Cant, 2002:5) and increase the cost of doing business (Ahwireng-Obeng& Piaray, 1999:78; Tustin, 2001:126). In South Africa, entrepreneurs view crime as the biggest threat facing the SME sector (Viviers et al, 2001:4; Finmark, 2006; Tustin 2001:37).

- **Health**

Availability of quality health care is an important influence on entrepreneurship and the ability of entrepreneurs to work (Robertson et al, 2003:311). In South Africa, the high prevalence of HIV/AIDS is a serious threat to SMEs (Viviers et al, 2001:4) and negatively affects business success (Strydom & Tustin, 2003:3 Ligthelm & Cant, 2002:5).

- **Culture**

Culture is considered as the shared values, beliefs and norms of a society and is an important contextual factor, collectively programming and affecting entrepreneurs in a given community, ethnic group, region or country and generating differences across national and regional boundaries (Pretorius & van Vuuren, 2003:517; Stewart, Carland, Carland, Watson & Sweo, 2003:30; Mueller & Thomas, 2001:58). Levels of entrepreneurial activity in a country are affected by cultural norms (GEM, 2002c:20; Weber, 1930; Morrison, 2000:106; Ligthelm & Cant, 2002:41; Lee et al, 2006:352).

National cultures that emphasize achievement and social recognition for all forms of entrepreneurial success are more conducive to entrepreneurship (McCleland, 1961; Thomas & Mueller, 2000:289; Jennings, 1994:148; Nasser et al, 2003:400; Rwigema & Venter, 2004:68). Communities with low entrepreneurial culture may discourage entrepreneurs, who fear social pressure and being ostracized (Ligthelm & Cant, 2002:5; Dreisler et al, 2003:387).

Hofstede's (1980) extensive study into culture led to the development of four culture dimensions which identify and explain differences in cultural patters observed across countries. Although Hofstede did not specify the relationship between culture and entrepreneurial activity per se, his culture dimensions are useful in identifying key aspects of culture related to entrepreneurial orientation (Mueller & Thomas, 2001:52). The impact of the Hofstede dimensions of power distance; uncertainty avoidance; masculinity; and

individualism on entrepreneurship orientation is described by various authors (Pretorius & van Vuuren, 2003:518; Stewart et al, 2003:31; Themba et al, 1999:108; Drakopoulon; 2002:117).

- Power distance (PD) is the extent to which a society accepts that power is distributed unequally and the degree of tolerance of hierarchy. High power distance leads to restriction on the innovation and creativity which are necessary for spotting opportunities to present solutions to existing problems. Entrepreneurship would require a low power distance score, which means the culture of the society is such that individuals are not scared to think out of the box and society does not frown upon people who question authority and do things differently.
- Uncertainty avoidance (UA) is the extent to which a society feels threatened by uncertain, unknown and ambiguous situations. High uncertainty avoidance (HUA) leads to avoiding high-risk areas that are uncertain; therefore people in a community with a high score would naturally shy away from self-employment, where risk and uncertainty are inherent. Also inherent in the high UA is the fear of failure, which is seen as symbol of weakness and a dereliction of duty. Fear of failure limits initiative, creativity and increases risk aversion. Low uncertainty avoidance means acceptance for uncertainty, willingness to take risks and the recognition of achievement in terms of pioneering efforts, irrespective of the threat of failure. An innovative orientation and tolerance of failure, both an important antecedent for the promotion of entrepreneurship, are more prevalent in low uncertainty avoidance cultures than in high uncertainty avoidance cultures.
- Individualism is the extent to which individuals are allowed to take care of just themselves, and emphasis is placed on individual accomplishment. Collectivism, on the other hand, is when individuals owe their primary allegiance to the group. Low individualism results in the pursuit of collective interests, which does not promote the spirit of independence, individual initiative and the self-reliance needed in entrepreneurship. In collectivist societies, entrepreneurs may find it difficult to reveal anxieties, weaknesses and problems that may arise from the nature of entrepreneurship, to avoid bringing “shame on the in-group”. In high individualism cultures, having autonomy is more important. Individual decisions are considered superior; individual initiative is socially encouraged; individual recognition/rewards are emphasized and there is an increased likelihood of an internal locus of control orientation; all of which foster strong entrepreneurial values.
- Masculinity is the extent to which assertiveness, achievement and acquisition of material things and wealth are emphasized over quality of life, values, people, harmony and

relationships (referred to as feminine). Societies characterized by low masculinity have a low drive for achievement which, according to McClelland (1961), results in a low predisposition for entrepreneurial success. High masculine cultures emphasize achievement and thus their achievement motivation is high.

Table 2.1: The Hofstede dimensions with key entrepreneurial dimensions

Hofstede's cultural dimension	Entrepreneurial orientation score on the Hofstede	Entrepreneurial dimension	Categorization for African culture
Power distance	Low	Innovativeness	High
Masculinity	High	Energy / competitive aggressiveness	Low - more feminine
Uncertainty Avoidance	Weak	Risk taking / pro-activeness	Strong – risk averse
Individualism	High	Internal locus of control / Autonomy	Low – collective

Source: Adapted from van Vuuren & Pretorius (2003:522)

South Africa, like other developing countries, is relatively high on power distance and uncertainty avoidance and low on individualism and masculinity (Themba et al, 1999:109). Unlike the United States of America, whose culture supports entrepreneurship (GEM, 2002c:17), South Africa's culture is not supportive of the development of entrepreneurship owing to its negative attitudes/mindsets towards self confidence, entrepreneurship and failure in general (Pretorius & van Vuuren, 2003:524; GEM, 2003a:15). There are communities in South Africa that view business ownership as suspect and entrepreneurship as associated with dishonesty, poor business ethics and serious acts of indiscipline (Gbadamosi, 2002:96; Rwigema & Venter; 2004:19). Furthermore, the notion of enterprise creation could be contradicted by the "Ubuntu" culture (a community-sharing concept emphasizing the common good), which threatens wealth creation and thus discourages SMEs from growing their businesses (Mayrholer & Hendriks, 2003:597).

- **Role models**

Societies which have the support of successful business people that mentor young entrepreneurs to ensure that they learn by experience and develop sound business principles facilitate entrepreneurship (Nasser et al, 2003:399). Role models can inspire confidence as well as provide mentorship through advice and contacts (Rwigema & Venter

2004:70; GEM, 2006:15). A limited family business culture and the lack of entrepreneurial role models in South Africa is the most prominent barrier to SME development (Ligthelm & Cant, 2002:6).

2.2.4 Market opportunity factors

Market opportunity factors are industry-specific factors associated with the industry in which the firm operates and they represent market conditions, the interest or actions of consumers, competitors, intermediaries and suppliers (Dahlqvist, 2000:5; Viviers et al, 2001:4; Ligthelm & Cant, 2002:5; Nieman, 2006:23). Examples of market opportunity factors are discussed briefly below:

- **Market conditions**

The stage the industry is in at in its life cycle (Markman & Baron, 2003:297) and industry conditions / trends (Shane & Venkatarman, 2000:222) can facilitate or inhibit entrepreneurship. Industry complexities and weaknesses (Ligthelm & Cant, 2002:5) can inhibit entrepreneurship. Major changes in the industry (Viviers et al, 2001:4) lead to low predictability, which does not allow for proper planning (Themba et al, 1999:105). The high growth potential of the industry in which the SME operates is also a factor in entrepreneurship (Gartner et al, 1999:220; Andries & Debackere, 2006:81).

Choosing a market segment with potential market growth is a factor influencing the success of SMEs (Shane & Venkatarman, 2000:224). A poor market selection, for instance one with many market imperfections, too much market heterogeneity and/or a limited market size with poor growth prospects, can negatively affect the entrepreneurship process (Viviers et al, 2001:4; Strydom & Tustin, 2003:3; Ligthelm & Cant, 2002:5). Therefore having access to pools of knowledge regarding opportunities in particular markets would have a positive impact on entrepreneurship (Nasser et al, 2003:399).

- **Demand for supply**

Businesses rely on markets for survival and markets need money to turn their interest into effective demand for supply, leading to market attractiveness (Themba et al, 1999:105; (Ligthelm & Cant, 2002:4; Shane & Venkatarman, 2000:222). Market demand for the SME's products is a major factor influencing the success of an SME (Kangasharju, 2000:29). Low or insufficient or unsteady demand for products/services remains the primary challenge limiting

SME growth (Luiz, 2002:67; Nieman, 2006:23; Viviers et al, 2001:4; Ligthelm & Cant, 2002:5).

- **Competition**

Today, SMEs operate within a global context characterized by intensified competition and unknown competitive rivals (Goodall, 2000b:2; Ligthelm & Cant, 2002:5). Competitive concentration, along with market actions and strategies of competitors, has an impact (positive or negative) on the entrepreneurial process (Kangasharju, 2000:32; Baron, 2004b:233). Therefore an analysis of the role of competitors and counter-competition intelligence and actions are crucial for the survival of an SME (Viviers et al, 2001:4; Nieman, 2006:23; Rwigema & Venter, 2004:19; Ligthelm & Cant, 2002:5).

- **Access to markets**

Stable access to markets and marketing brokers, as well as the ability to overcome barriers to entry into a specific industry, is crucial for enhancing entrepreneurship and SME success (Nasser et al, 2003:399; Rogerson, 2001a:117; Finmark, 2006; Tustin, 2003:37) while inadequate access to profitable markets inhibits entrepreneurship (Clover & Darroch, 2005:244).

Other factors influencing growth negatively include limited export opportunities (Tustin, 2001:126). The reason for the success of smaller firms to enter into export markets lies in the new determinants of competitiveness, as framed by the wishes and needs of the foreign buyers (Czinkota & Ronkainen, 2003:50).

- **Location**

Geographic location has its implications for access to markets and other resources like finance, skilled labour, subcontractors; infrastructure, distribution and transport logistics and other facilities (Tustin, 2001:102; Dahlqvist et al, 2000:5; Berry et al, 2002:22). SME success also depends on neighbourhood appearance and continued/maintained future business operations in that location (Tustin, 2001:37; Strydom & Tustin, 2003:7; GEM, 2002a:23).

The above discussion suggests that business success is associated with factors external to the business itself (Miller et al, 2003:216). However, Glancey (1998:18) cautions against emphasizing only external factors, which can lead to neglecting those factors that impact on firm performance from inside the firm. It can be concluded that since internal factors

determine the success of the firm in the market structured by external factors (Kangasharju, 2000:29); it is crucial to also study the internal factors of firm success. Thus the internal factors are the focus of this study.

2.3 The internal/endogenous factors

The personal environment (internal or firm-based factors) has an impact on entrepreneurship and business success (Guzman & Santos, 2001:218; Fielden et al, 2000:303). The personal environment includes all firm-specific factors that are influenced by specific firm action, including the availability of resources, personal skills and abilities for pursuing entrepreneurial functions and the effective use of resources inside the firm (Panco & Korn, 1999:2; Nieman, 2006:22). Deficiencies in the internal environment are the major cause of SME failures, with over 65% of failure causes said to be firm-based (Dockel & Ligthelm, 2005:61; Ligthelm & Cant, 2002:6).

2.3.1 Company demographics

The literature supports the suggestion that company demographics are factors that may affect firm survival (Panco & Korn, 1999:2). Examples of company demographics factors are discussed briefly below:

- **Size of firm**

SMEs exist in a hostile external environment, with constraints that affect SMEs differently, from larger competitors in the same industry and area (De Villiers 1997:82, Baard & Van den Berg, 2004:2). Being small correlates negatively with survival rates, owing to the limited resources that SMEs find a key liability (Gruber, 2002:194; Davila et al, 2003:700).

- **Age of firm**

Study findings support consideration of age of an organization as a factor that may affect firm survival and growth and/or organizational decline and death (Panco & Korn, 1999:2). The liability of newness that makes new SMEs face a greater risk to survival than older firms is that new firms do not have the experience, access, links, experience, reputation or the legitimacy of the older firms, leading to limited access to external resources (Davila et al, 2003:700).

- **Organizational structure**

The methods by which the firm was founded and its organizational structure and strategic choices are factors that may affect firm survival and growth or organizational decline and death (Gundry & Welsch, 2001:458; Kangasharju, 2000:29).

- **Community networks**

Supporting local communities through ethical corporal social responsibility builds a positive image in the community (Besser, 1999:25), which benefits SME success. On the other hand SMEs seen as capitalist sharks by communities they serve have a lower probability of survival (Miller et al, 2003:216).

- **Product and competitiveness**

Sustainable competitive advantage is a factor in the survival, success and growth of enterprises (Man et al, 2002:129) and is achieved by competitive strategies like product differentiation (Pretorius et al, 2005a:63). Uncompetitive products a limited product offering, lack of track record and unknown brands often lead to SMEs not reaching their targeted sales (Clover & Darroch, 2005:243).

2.3.2 Human capital

The first place to look for explanations for internal determinants of survival is the initial resource endowment which includes the human capital of the enterprise (Dahlqvist et al, 2000:2). Human capital can be defined as the attitudes, commitment, values, knowledge, experience, education, capability, skills and abilities that help the entrepreneur (and his team) in the tasks of starting, running and growing a business, to learn more about how to do so and to make owners more efficient in how they act in running their enterprise and in performing complex tasks (Rauch & Frese, 2000:2; Markman & Baron, 2003:284).

A considerable amount of research suggests that the human capital of the entrepreneur is the central overwhelming force necessary to the development and survival of the business and the competitiveness of his or her venture (Ucbasaran et al, 2004:430; Markman & Baron, 2003:285; Man et al, 2002:130).

Many studies show that there is a positive relationship between the business's success and the SME's human capital (Rauch & Frese, 2000:1; Lussier & Pfeifer, 2001:233). One of the aspects of new/small businesses that make them more prone to failure is that they may not be sufficiently endowed with the requisite human resources to execute their strategy (Thornhill & Amit, 2003:505).

The human capital factors that influence the success or failure of new ventures involve the background of the entrepreneur, the actions of entrepreneurs, the decisions they make; the strategies they develop and the style of leadership they exercise (Baron, 2004b:223; Dahlqvist et al, 2000:3). These are related to the entrepreneurs' motivations, their attitudes, their abilities and the team of managers and employees they gather (Glancey, 1998:18; Guzman & Santos, 2001:217).

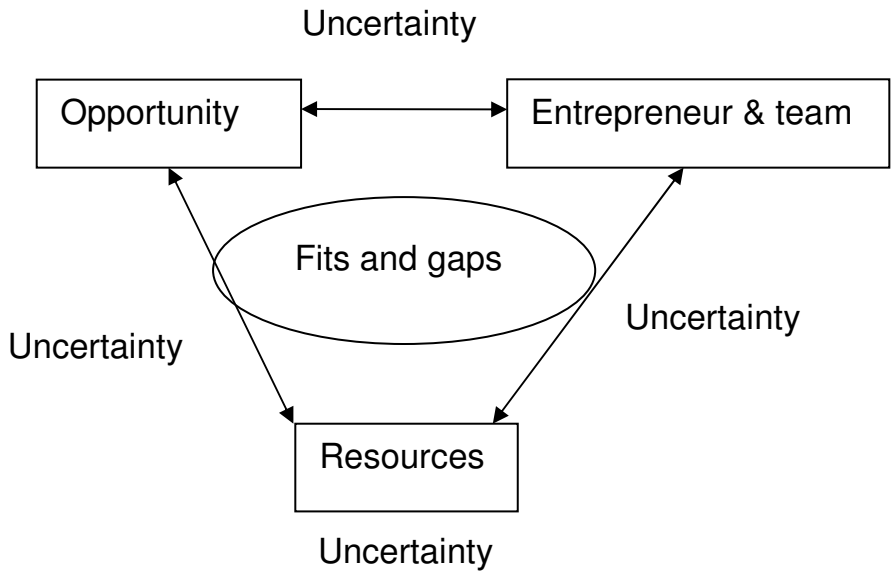
For many years economic theorists have attributed key roles to the function of the entrepreneur in the economic system (McClelland, 1961; Knight, 1964; Schumpeter (1934, Kirzner, 1973; Drucker, 1985). The work of Weber (1930) was elaborated on by McClelland (1961), who posited that the abundance of individual entrepreneurs was a key supply condition leading to economic success in the so-called achieving societies (Thomas & Mueller, 2000:288). Emphases is given to the positive effect of the experienced, habitual, serial or portfolio entrepreneurs who are fascinated by entrepreneuring such that they use their skills to create and run several entrepreneurial ventures some at the time and others one after another (Westhead, Ucbasaran & Wright, 2005:72; Clinton, Totterdell & Wood, 2006:179; Drakopoulou Dodd & Anderson, 2007:341).

It seems that the entrepreneur forms the hub and the core of the entrepreneurship process (Wickham, 2001:27; Guzman & Santos, 2001:227). The entrepreneurship process itself is the course through which a new venture is created by an entrepreneur who chooses to take appropriate action to pursue an opportunity to produce something distinctive in the marketplace, and to add value in the face of dynamic competition and a volatile environment (Hisrich, Peters & Shepherd, 2005:3; Rwigema & Venter, 2004:26; Baron, 2004a:169).

At its core, the entrepreneurial process is driven by the market opportunity; appropriate and efficient resources and a lead entrepreneur with an appropriate company structure and

motivated team (Timmons, 1999:38; Kodithuwakhu & Rosa, 2002:434; Wickham, 2001:37; Rwigema & Venter, 2004:25; Shane & Venkataraman, 2000:219) as illustrated in figure 2.1.

Figure 2.1: Drivers of the entrepreneurial process



Source: Timmons (1999:38)

The creative brilliance of the lead entrepreneur, together with the quality, maturity, diversity and depth of the entrepreneurial team, is thus a key determinant in the survival of the SME and the likelihood of high performance and growth (Friedrich, Glaub, Gramberg & Frese, 2003:2; Ahwireng-Obengn & Piaray, 1999:78). For this reason, a perspective that sheds light on the key aspects of human capital can contribute substantially to the understanding of the process through which entrepreneurs recognize opportunities and gather resources, and why some people fail while others succeed in entrepreneurship (Baron, 2004b:222; Shane & Venkataraman, 2000:221).

The entrepreneur's human capital is a combination of the following factors, which may have a positive or negative effect on productivity (Dahlqvist et al, 2000:3; Gundry & Welsch, 2001:462; Markman & Baron, 2003:287; Pretorius et al, 2005a:55; Simpson et al, 2004:484):

- Socio-demographics include facts of the entrepreneur's background, like age, gender, race, height, birth order, family background, education, parental status, social values and beliefs of the entrepreneur and exposure to role models.

- Specific experience includes management know-how and specific industry knowledge from accumulated work habits and business experience, which brings understanding of how business is done in a specific context of suppliers, competitors and customers in a specific industry.
- Personal characteristics include all psychological and cognitive characteristics that influence the attitudes and mindset of entrepreneurs, for example intelligence, health, attractiveness, talents, personality, traits, achieved attributes and accumulated habits.
- Competencies, capabilities and skills include all existing and acquired knowledge that leads to certain behaviour and actions of entrepreneurs that enable them to identify and evaluate market opportunities; to set up realistic and measurable goals, to secure resources required and set up new ventures; to produce and service the market; to manage conflict effectively and to achieve overall industrial efficiency as well as effectiveness that lead to the growing of the business.

The section below discusses briefly all the factors of human capital that are said to influence the success or failure of new ventures.

2.3.3 Demographics

Man et al (2002:125) assert that the entrepreneur's demographics are often cited as one of the most influential factors related to the performance of an SME and its competitiveness. Each of these factors is discussed briefly:

- **Age**

Increasing age is strongly and positively correlated with work experience, fostering the development of entrepreneurial skills until diminishing effort associated with old age sets in (GEM, 2005a:11). The optimal starting age for starting a business is between 22 and 45 in the USA. Starting too early may mean limited abilities, with the period before 22 given to training, education and work experience (Rwigema & Venter 2004:70). Starting too late may mean the lack of the energy and resilience of youth that the business so needs (Ucbasaran et al, 2004:432). Successful entrepreneurs have the optimism and energy of youth and experience that comes with age (Bygrave, 1997:8).

- **Gender**

Women have been associated with lower levels of human capital and have had fewer opportunities to develop relevant experience and consequently have greater difficulty in assembling resources (Ucbasaran et al, 2004:432; GEM, 2005a:33; GEM, 2002b:5; Martinez, Mora & Vila, 2007:102).

- **Family upbringing**

Bolton & Thompson (2004:21) argue that familoy background is important to the entrepreneur. Early family environment includes race, birth order, status and occupation of parents, perception of desirability, perception of feasibility. A youth whose environment instills confidence in entrepreneurial success is more likely to step forward (McCline et al, 2000:88). Well-educated parents who encourage independence and self-reliance confer on their offspring an early advantage; while wealthy parents can assist with start-up capital (Rwigema & Venter, 2004:70).

- **Role models**

According to the role model theory, parents exert a strong influence on children when they opt for a certain type of entrepreneurial activity. It is possible that those entrepreneurs descended from entrepreneurs possess some advantages over those that do not (Guzman & Santos, 2001:217).

- **Education**

A firm's capacity to compete is embedded in incumbents' education, which is related to knowledge, skills, problem-solving ability, discipline, motivation, self-confidence and behaviour of entrepreneurs that allow them to identify market opportunities and gather resources required to set up the business (Rogerson, 2001a:117; Martinez et al, 2007:104). Education itself is a means through which knowledge can be gained and includes all the teaching, formal and informal learning, tutoring and instructing individuals receive in their background years (Rwigema & Venter 2004:69; Ucbasaran et al, 2004:431; Dahlqvist et al, 2000:3; GEM, 2006:20).

2.3.4 Previous experience

The greater the entrepreneurs' previous experience, the higher their entrepreneurial quality will be, as the experience will have involved a learning process that helps them to identify opportunities, reduce their initiall inefficiency and also improve their capacity in performing

various tasks (Guzman & Santos, 2001:217; Fielden, 2000:296; Barreira, 2004:43). Previous experience includes work experience, business management experience and industry-specific experience (Rauch & Frese, 2000:2; Gundry & Welsch, 2001:464; Tustin, 2001:88; Ucbasaran et al, 2004:432; Guzman & Santos, 2001:217). Each factor is discussed briefly:

- **Work experience**

The ability to assimilate experience and to learn from experience itself is one of the key factors influencing the entrepreneurial process (Deakins & Freel, 1998:150). Most new firms are started by people who have worked (prior to start-up) in other jobs that gave them the relevant experience to identify a business opportunity and the technical ability to produce the product or give the identified service (McCline et al, 2000:88; Rwigema & Venter 2004:70; Barreira, 2004:55). People lacking work experience have fewer capabilities and may find it more difficult to develop a good business idea (Robertson et al, 2003:313; Rwigema & Venter, 2004:19). Without work experience many of South Africa's black SMEs remain at the survivalist stage or are doomed to failure from the start (Rwigema & Karungu, 1999:113).

- **Business Ownership Experience**

Entrepreneurial experience may be viewed as a significant contributor to entrepreneurial human capital, as it can translate into valuable knowledge developed through direct experience (Tustin, 2001:88). This experience can build reputations that help to secure resources and assets that can be utilized in identifying and exploiting subsequent ventures (Guzman & Santos, 2001:217). SMEs that start their businesses without any prior business ownership experience have to go through the costs of gaining entrepreneurial skills while implementing the idea (Tustin, 2001:126).

- **Industry-specific experience**

Having professional experience in an organization that is in the same industry as the one in which the entrepreneur starts his new venture can increase the probability of survival and high performance (Dahlqvist et al, 2000:4). Industry-specific experience is an essential way of acquiring abilities and expertise to respond to a perceived market need, along with gaining important business contacts and insights about the industry (Deakins & Freel, 1998:150; Guzman & Santos, 2001:217; Barreira, 2004:42). This knowledge is mostly tacit and costly to build, with entrepreneurs who lack experience struggling to make accurate estimates of sales and expenditure targets (Bygrave, 1997:4).

2.3.5 Characteristics of the entrepreneur

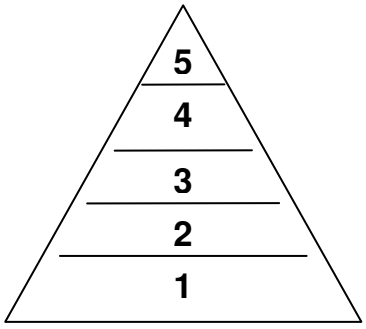
The entrepreneur's characteristics (traits, values, attitudes) are often cited as the most influential factors related to the performance of an SME and its competitiveness (Man et al, 2002:125; Simpson et al, 2004:484; Gurol & Atsan, 2006:28). Earlier studies of the entrepreneurial process examined the so-called entrepreneurial personality or a single psychological profile of the entrepreneur to find individual traits of successful entrepreneurs/owner-managers as compared with non-entrepreneurs (McCline et al, 2000:82; Ibrahim & Soufani, 2002:426; Mueller & Thomas, 2001:51; Rwigema & Venter 2004:64; Baron, 1998:276).

While there is not one all encompassing personality profile, it is widely thought that there are certain characteristics that are necessary to meet the tasks and challenges of new venture creation and without which the entrepreneurial process limps and eventually atrophies (Cornwall & Naughton, 2003:71; Morris & Zahra, 2000:93). The closer the match between the individual's personal characteristics and the characteristic requirements of being an entrepreneur, the more successful the individual will be (Markman & Baron, 2003:281). Each of these personality factors are discussed below:

- **The need for achievement (nAch)**

Maslow's (1980) hierarchy of needs and conception of the socio-cultural dimensions influencing workers' attitudes towards work (motivation) is helpful in exploring their implications for entrepreneurship development.

Figure 2.2: Maslow's hierarchy of needs



1. Level 1: Physiological needs - basic/primary survival needs for food, drink, clothes, shelter, sex and sleep.
2. Level 2: Security needs – the need for self-preservation and the protection of others' future assurance e.g. employment.

3. Level 3: Social needs - the desire to belong, need for affiliation, need to be part of a reference group.
4. Level 4: Esteem needs – the need for self esteem, need for self confidence, need for self image and need for recognition by one's peers.
5. Level 5: Self actualization - a need to stretch one's capabilities includes the need for achievement, self fulfillment, need to develop own skills and express self.

The desire to succeed fulfils the level 5 need for self actualization. This is linked with the identified 'need for achievement' and 'accomplishment of a goals' as the fundamental driving trait in the personality of successful entrepreneurs (McClelland, 1987:221; Darroch & Clover, 2005:327). This is not only innate but can be taught and practiced, thus making it a capability instead of just a trait (Wickham, 2001:16; McCleland, 1987:222).

The motivation construct is defined as the ambition or desire to be successful, to do well, to achieve excellence, to improve and to avoid failure (Santrelli & Vivarelli, 2007:17; van Vuuren & Nieman, 1999:4; McClelland, 1961 as cited by Darroch & Clover, 2005:325). Motivation skills gives the urge, motivation stimulation and inspiration that lead to certain thoughts and behaviour, which in turn give rise to higher levels of effort towards organizational goals (Rwigema & Venter, 2004:48).

McClelland (1987:221) identifies the 'need for achievement' (nAch) as the fundamental driving trait in the personality of successful entrepreneurs. The need for achievement results in high ambition and self-drive, which are necessary if entrepreneurs are to realize large goals against many odds (Rwigema & Venter, 2004:54; Wickham, 2001:16, Gurol & Atsan, 2006:28; Stewart et al, 2003:31). However, other studies like Bygrave (1993:259) have rejected the notion of "need for achievement" as it was also found in comparable non-entrepreneurs).

Achievement motivation is linked with personal self-efficacy, self esteem, attitudes, optimism, hard work, perseverance and high energy levels which all contribute towards business success through the ability to stand up and gather the resources (McClean, 2000:82; Wickham 2001:16; Markman & Baron, 2003:288).

- **Internal locus of control**

One of the characteristics consistently found in successful entrepreneurs is the tendency for the entrepreneur to have internal locus of control (Gurol & Atsan, 2006:28; Thomas & Mueller, 2000:292). The locus of control refers to the degree to which an individual perceives the outcome of an event to be either within or beyond his or her personal control (Morris & Zahra, 2000:94). A person with an internal locus of control believes that he has influence over the outcomes through his ability, effort or skills. On the other hand, people with an external locus of control believe that outside forces such as luck, fate or powerful others control and determine outcomes (Mueller & Thomas, 2001: 56).

Internal locus of control increases the likelihood that a potential entrepreneur will take action to carry out his or her plans (Mueller & Thomas, 2001:57). Managers/owners who had a greater internal locus of control believed in their ability to control key variables (e.g. customer demand, price, distribution, financial resources, use of technology or access to raw materials, etc) that ultimately determine failure or success of a business (Morris & Zahra, 2000:94).

The internal locus of control is linked with initiative, self efficacy, self-confidence, self-esteem and the ability to gather resources (Mueller & Thomas, 2001:56). Each is discussed below:

- **Initiative**

Having initiative is essential, as the business depends on the entrepreneur's actions (Rwigema & Venter, 2004:54). Many individuals who perceive an entrepreneurial opportunity to be both desirable and feasible simply never get around to performing activities essential to starting a business due to paralysis fuelled by inertia, laziness, doubt and fear, among others (Mueller & Thomas, 2001: 56).

- **Self confidence**

Self-confidence which people to believe that they largely control their own fate (Rwigema & Venter 2004:64).

- **Self efficacy**

Self efficacy is the belief in one's ability to organize necessary resources, skills and competencies to effectively execute actions to attain a certain level of achievement on a given task (Markman & Baron, 2003:287; Robertson et al, 2003:313; Erikson, 2002:278).

- **Self esteem**

Self-esteem refers to one's perception of one's self as capable, important, successful and worthy (Pretorius et al, 2005a:57).

- **Ability to gather resources**

The ability to gather and control the venture resources necessary to start, run and grow a business, and to manage them and efficiently and effectively use those resources for the intended purpose (Gbadamosi, 2002:98; Hisrich & Peters, 2002:263; Hellman, 2007:83). Successful entrepreneurs are known to be resourceful, which is viewed as prerequisite for action (Mueller & Thomas, 2001:55; Rwigema & Venter, 2004:64).

- **Tolerance of ambiguity**

Conditions in the market are never certain, are ever changing and there are a lot of seemingly contradictory trends in the market (Rwigema & Venter, 2004:64; Mueller & Thomas, 2001:55). New ventures need to adapt their initial business idea due to the presence of uncertainty and ambiguity (Andries & Debackere, 2006:81). Thus successful entrepreneurs display a higher tolerance of ambiguity than non-entrepreneurs (Morris & Zahra, 2000:94; Gurol & Atsan, 2006:28).

- **Adapting to change**

When owners find their environment destabilizing, adaptation and flexibility becomes a critical strategy for venture success (Rwigema & Venter, 2004:55). An intolerant response to change can lead to denial, risk-averting behaviour and imposition of arbitrary constraints and structures that stifle the owner/manager's ability to adapt (Morris & Zahra, 2000:94). Adaptation is crucial for business performance (Andries & Debackere, 2006:81)

- **Risk taking propensity**

It all started with Adam Smith (1776), who suggested then that risk taking was one of the defining characteristics of an entrepreneur. Risk is loosely defined as probability of unwanted outcomes (Rwigema & Venter 2004:57; Morris & Zahra, 2000:95). Risk taking propensity combines all factors dealing with risk, including taking calculated risks, being realistic when analyzing opportunities, and spreading one's risk. All these are said to be key factors that impact positively on entrepreneurship (Timmons, 1999:38; Gurol & Atsan, 2006:28; Stewart et al, 2003:27; Hisrich & Peters, 2002:238; Themba et al, 1999:107).

Entrepreneurs face uncertainty and possible risk in at least five key areas, including financial, career, family and social; psychological and time (Botha, 2006:68). Successful SME operators tend to be moderate risk-takers who make calculated risk assessments and they are not afraid of failing; rather they are intent on succeeding (Morris & Zahra, 2000:95). Less successful SMEs do not plan for contingencies and rely on luck alone, which is said to be reckless (Rwigema & Venter, 2004:19).

- **Opportunity alertness**

The role of the entrepreneur has been defined as instrumental in discovering and exploiting new opportunities (Schumpeter, 1934; Kirzner, 1973). Therefore the ability to spot opportunity, from the starting point of isolating, quantifying and refining an opportunity from a set of ideas, is a key factor impacting positively on entrepreneurship (Rwigema & Venter 2004:57; Ahwireng-Obed, 2003:1). Opportunity alertness and identification is linked with creativity and innovativeness (Mueller & Thomas, 2001:57). With South Africa being the fourth lowest in terms of opportunity based entrepreneurs means that most South African entrepreneurs are not alert to opportunities (GEM, 2005a:21).

- **Creativity**

Creativity is the cognitive process of developing and generating ideas, concepts, commodities or discoveries (Botha, 2006:68; Rwigema & Venter 2004:57). It has been defined as “the envisioning of a new combination of resources and market realities, often through the questioning of conventional wisdom, the discovery of new knowledge regarding market needs, technology, the availability of vital resources and or finding new applications for pre-existing knowledge” (Pretorius et al, 2005a:56; Lumsdaine & Luimsdaine, 1995:13). Creativity is linked with innovation since innovation is the successful practical implementation of the creative ideas or concepts to ensure that the set commercial and profitable aims are met and are in line with the specific opportunity in the market environment (Antonites, 2003:109; Brazeal & Herbet, 1999:29; Pretorius et al, 2005a:57; Themba et al, 1999:107).

- **Innovation**

Innovation is explicitly included in definitions describing the entrepreneur as a person who introduces new or improved products, new production techniques, new processes, new markets, new marketing or sales methods, new channels of distributions and promotions, new inputs and raw materials, new or improved services, new methods of financing, new technologies (including machinery, equipment and information technologies), new innovative

boundary support, new organizational structure and administrative procedures, and new methods of communication, management or even reorganizing an entire new industry (Schumpeter, 1934; Drucker, 1985; Rwigema & Venter, 2004:59). There appears to be strong empirical evidence that successful entrepreneurs are more innovative than non-entrepreneurs (Mueller & Thomas, 2001:58, Gurol & Atsan, 2006:28, Stewart et al, 2003:27).

- **Optimism**

Entrepreneurs are known to have eternal optimism, helping them believe they will avoid well-known pitfalls (Rwigema & Venter, 2004:59), while many do avoid pitfall, this quality can also lead to the optimism fallacy, which can also contribute to business failure (Baron, 2004b:222).

- **Problem solving**

How the owner of the SME faces the problems determines its success or failure (Rwigema & Venter, 2004:55). Problem-solving skills include time management, ability to handle stress and all problem-solving behaviour.

- **Decision making**

Decisiveness is very important in an entrepreneur as it determines the success or failure of the business (Rwigema & Venter, 2004:57; Bird, 2001:447).

- **Leadership**

A dynamic business depends on the leader being able to articulate the vision of the company to the team and to build a team towards efficiency (Rwigema & Venter, 2004: 69).

- **Ability to learn**

Rogerson (2001a:117) stresses that successful entrepreneurs have absorptive capacity and the ability to learn. Learning refers to the acquisition of knowledge by actors who are willing and able to apply that new knowledge in making decisions or influencing others in the organization (Morris & Zahra, 2000:93).

- **Energy**

Most successful entrepreneurs have lots of energy (Mueller & Thomas, 2001:55; Rwigema & Venter, 2004:64).

- **Integrity**

Personal values like ethics, honesty, integrity, code of ethics and consistency are important for business development and the building of the trust so needed between the owner of the SME and its stakeholders (Rwigema & Venter, 2004:69).

- **Capacity for hard work**

Successful entrepreneurs have instrumental habits of industriousness, hard work and diligence, without which the company may not be able to realize its goals (Thomas & Mueller, 2000:292).

- **Frugality**

Successful entrepreneurs nurture the habits of frugality and thriftiness without which the company may not be able to use its resources effectively and efficiently (Cornwall & Naughton, 2003:71).

- **Accountability**

Successful entrepreneurs assume personal responsibility and accountability, as there is normally no one else to blame (Mueller & Thomas, 2001:55; Rwigema & Venter, 2004:64).

- **Independence and autonomy**

Successful entrepreneurs display individuality, independent thought, preference for autonomy and self-reliance (Thomas & Mueller, 2000:292; Rwigema & Venter, 2004:69).

- **Perseverance**

Successful entrepreneurs are committed and have tenacity, perseverance and endurance (Rwigema & Venter. 2004:57; Mueller & Thomas, 2001:55).

- **Negotiating skills**

Having persuasive negotiating skills is important for entrepreneurship (Guzman & Santos, 2001:216).

- **Time management skills**

Timing and time management are important for entrepreneurship (Bygrave, 1997:15; Morris & Zahra, 2000:92).

While these traits (among others) have been cited in many studies, The studies on entrepreneurial traits have many methodology problems (Baron, 2003:254). One conclusion that could be drawn from these studies is that there is not one all-encompassing personality profile for successful entrepreneurs, nor could researchers find real character differences that distinguished entrepreneurs from non-entrepreneurs (Morris & Zahra, 2000:93; Rwigema & Venter, 2004:66). The main difference was not in character but in the process of recognizing opportunity, taking control of the environment and having the tendency to achieve in the entrepreneurial context (McCline et al, 2000:83).

While research still examines the characteristics of the entrepreneur, it has also moved towards the entrepreneurial process, together with the actions that the entrepreneur has to undertake and the abilities needed to successfully start and grow the enterprise (Bygrave 1993:256; Carter, Gartner & Reynolds, 1996:152; Gartner et al, 1999:216).

2.3.6 Capabilities, abilities and skills of the entrepreneur

Competent management skills are a prerequisite for the success of SMEs (OECD, 2002:24). Management competence (or know-how, capacity, abilities and skills) are a set of factors associated with successful businesses, as they give the entrepreneur the ability to perform a role successfully and the power to act effectively in a particular range of possible future circumstance (Ibrahim & Soufani, 2002:427; Markman & Baron, 2003:287; Wasilczuk, 2000:88; Mughan et al, 2004:428; Lange et al, 2000:6; Man et al, 2002:131; Bird, 1988:443).

These skills include being able to identify and evaluate market opportunities, to set up realistic and measurable goals, to develop business plans, to secure resources required and set up a new venture; to produce and service the market; to manage conflict effectively; and to achieve the overall industrial efficiency as well as effectiveness that lead to the growing of the business (Gundry & Welsch, 2001:463; Miller et al, 2003:219; Dreisler et al, 2003:386). Basically skills assist the entrepreneur to take action and do something about the business.

Bolton & Thompson (2002:11) define facets of the entrepreneur as the reasons why entrepreneurs do what they do. Bolton & Thompson (2002:79) identify six themes of key facets of the entrepreneur that may start as talent or temperament but can be developed, managed, enhanced by learning and application of techniques:

- F = Focus which is the ability to set daily goals and targets, to focus on set goals, to lock on targets, to concentrate never losing sight of critical issues and to discriminate between important, urgent and trivial activities. It is linked with the desire to get things done and the perseverance to make it happen.
- A = Advantage which is the ability to spot opportunities and the related details, to measure which option will give the greatest returns, to gather resources and to visualize the future.
- C = Creativity which is the ability to create ideas, coming up with solutions and creating opportunities given the environment.
- E = Ego which is the inner drive resulting in the need to be independent, to be in charge of own destiny, to make a difference. This gives the ability to have confidence, be motivated, be dedicated, to take responsibility, to be accountable and to have the courage to face and overcome setbacks.
- T = Team which constitutes the ability to know ones limitations, know when to look for help, finding the right people, encouraging all to work as a team and engaging in development of the people's potential.
- S = Social which is the ability to orientate themselves and their business mission around a social cause, passion, beliefs or values.

Superior performance is likely when resources, traits and capabilities are aligned with strategic industry factors (Thornhill & Amit, 2003:498; Lowe & Marriott, 200:11). Competitive advantage can be derived from a firm's capabilities to the extent that they are valuable, rarely able to be imitated and organized to be exploited (van Vuuren & Nieman, 1999:4; Man et al, 2002:135; Erikson, 2002:277).

On the other hand, one of the major reasons for the failure of SMEs seems to be insufficient management capacity; lack of expertise; low levels of skills; and managerial incompetence (Mughan et al, 2004:429; Viviers et al, 2001:4; Ligthelm & Cant, 2002:6; Clover & Darroch, 2005:243; Strydom & Tustin, 2003:1; Rwigema & Karungu, 1999:107; Freeman, 2000:372; Thornhill & Amit, 2003:500). Surveys of business failure suggest that SMEs often have a good idea, but because they have no idea of business fundamentals or do not know how to run a business, they forgo, under-exploit or delay the identified opportunity (Ladzani & van Vuuren, 2002:157; Tustin, 2003:34; Rwigema & Venter, 2004:25).

It can be concluded that entrepreneurship is a question of recognizing a good opportunity and having the skills to convert that opportunity into a thriving business by gathering together and managing resources (Bygrave, 1997:13; Timmons, 1999:38). Since it is the entrepreneur (and his/her team) that drives the venture through the different stages of the entrepreneurial process, it goes without saying that the opportunity must fit the personal skills of the entrepreneurial team (Hisrich et al, 2005:39; Man et al, 2002:130).

In order to understand the factors leading to the success or failure of the entrepreneurship process, it is necessary to look at the capacity needed to be a successful entrepreneur or improve entrepreneurial conduct (Watson et al, 1998:217; Rogerson, 2001a:117).

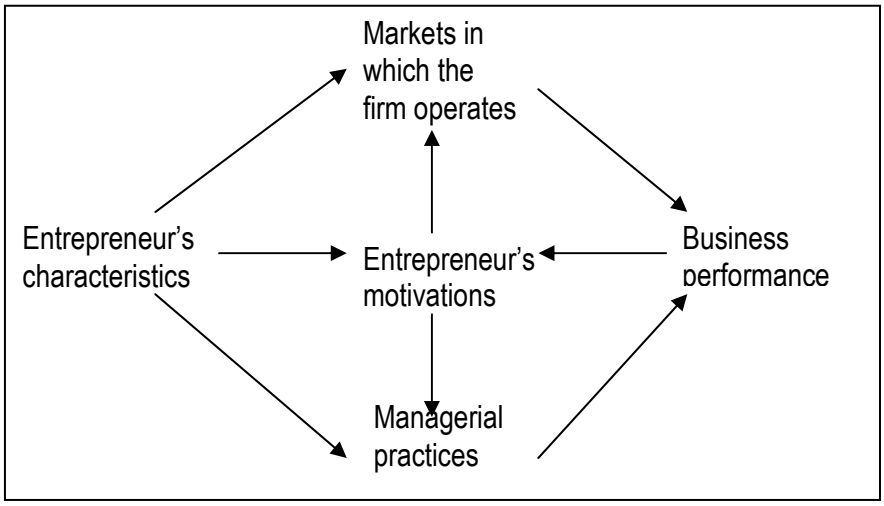
It has been noted that entrepreneurial research has been moving towards understanding skills and competencies that are required by entrepreneurs to function in all the areas related to business trade (Barreira, 2004:43). Thus the main objective of this chapter is to investigate abilities of the entrepreneur (and his/her team) as key endogenous factors in the entrepreneurial process leading to business success, growth or failure.

2.4 The entrepreneurship performance model

This study support Man et al (2002:125) when he states that in entrepreneurship and small business research a firm's performance is often considered the ultimate criterion of success or failure in both empirical studies and theoretical models on the success of SMEs. Therefore the normative theory underlying this study is based on eight models that link entrepreneurship performance with skills.

Glancey et al (1998:255) outlines a model of small-firm performance in which the personal characteristics of the entrepreneur determine the motivations and objectives that direct the firm's performance, which is mediated through the markets in which the entrepreneur operates and the managerial practices which he or she employs, as illustrated below:

Figure 2.3: Glancey et al's model of business performance



Source: Glancey et al (1998:255)

Glancey et al's model can be represented in a mathematical form as follows (Equation **2.1**):

Increase in performance = G (traits, motivation, management) x h(market) **(2.1)**

van Vuuren and Nieman (1999:1) developed a three-dimensional model in which entrepreneurial performance is a multiplicative function of motivation times entrepreneurial and business skills, as shown in equation **2.2** below.

↑E/P = aM x b E/S x c B/S **(2.2)**

- ↑E/P is defined as increase in entrepreneurial performance which is based on the starting of a business, utilizing an opportunity and growth of the business idea.
- M = Motivation is seen as the entrepreneur's level of need for achievement. This would include inner control, persistence, leadership, decisiveness, determination and sheer guts, achievement imagery, ability to inspire, ability to overcome obstacles or blocks, ability to get help, reactions to success or failure.
- E/S = Entrepreneurial skills cover the ability to turn their business ideas into feasible business opportunities, to start and to grow a business enterprise. Entrepreneurial skills include creativity, innovation, risk-taking, and the ability to interpret successful entrepreneurial role models and identification of market opportunities.
- B/S = Business skills cover all the conventional management training areas in a business, including being able to formulate business plans, and financial, marketing, operational, human resources, legal, communication, and management skills.
- a, b & c are constant coefficients.

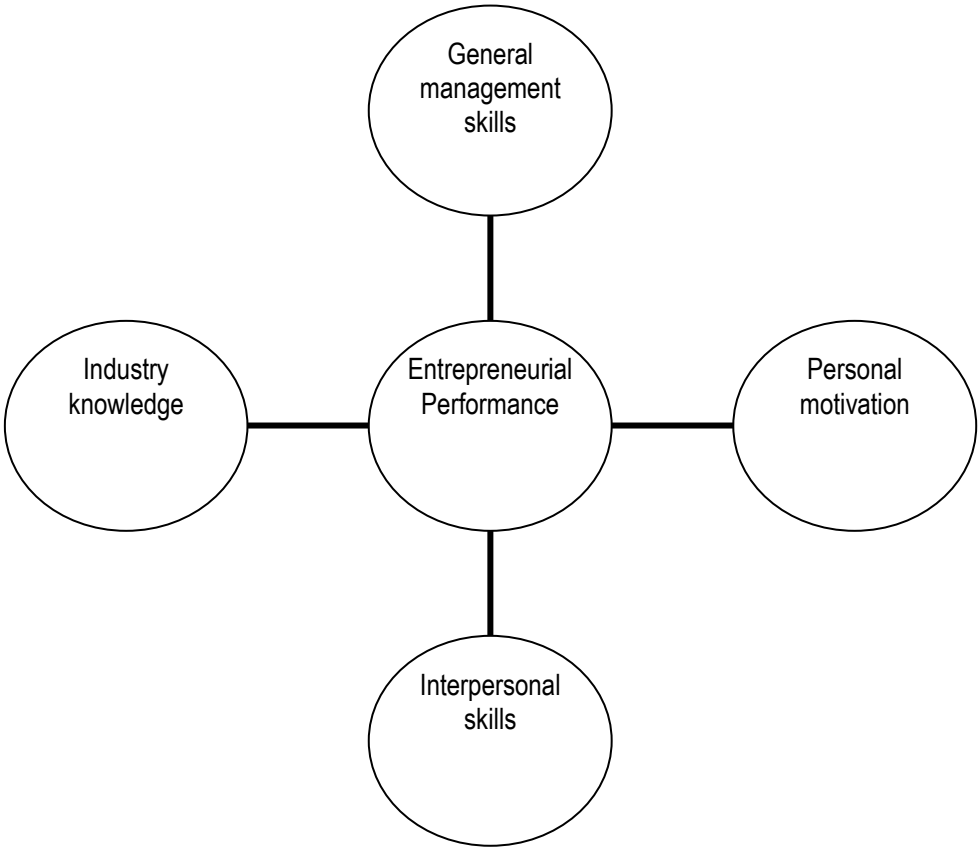
As this mathematical equation has constructs which are multiplicative, this implies that the absence of any one of the elements such as motivation, entrepreneurial skills or business skills will lead to no increase in entrepreneurial performance. This also means that the increase in the capacity of any of these skills can lead to at least an increase in the entrepreneurial performance of the entrepreneur.

The coefficients a, b and c are usually non-zero as they depict the existing levels of skills that an individual has. This study assumes that there is no individual who has no level of skills or such low levels of skills that the skill can be ignored. This principle is of paramount importance in this study and is applied in all the models developed in chapters 2, 3 and 4.

Wickham (2001:55) stated that entrepreneurial performance results from a combination of industry knowledge, general management skills, people skills and personal motivation. Wickham's model can be represented in a mathematical form as follows (Equation **2.3**)

↑Performance = W (industry, management, interpersonal, motivation) **(2.3)**

Fig 2.4: Wickham's model of the entrepreneurial performance



Source: Wickham (2001:55)

Erikson (2002:278) introduces the entrepreneurial capital model, which is defined as a multiplicative function of entrepreneurial competence and entrepreneurial commitment or motivation. Erikson's model can be represented in a mathematical form as follows:

Given equation 2.4 below:

↑Performance = f(ability, motivation).E(opportunity) = E(opportunity) x ability x motivation (2.4)

And equation 2.5 below:

Ability = business management + entrepreneurial competence = B/S + opportunity-id x resources (2.5)

Therefore means that equation 2.6 below can be written as:

↑Performance = E(opportunity) x M x (B/S+ opportunity-id x resource (2.6)

Man et al (2002:134) state that outside of the entrepreneur's background and external environment, SME performance is linked with internal firm factors (the competitive scope) and the influence of the entrepreneur (organizational capabilities and entrepreneurial competencies).

Man et al's model can be represented in a mathematical form as equation 2.7 below:

↑Performance = G(firm competitive scope) X M(O/C, E/C) (2.7)

Where O/C is the organizational capabilities which are equivalent of business skills construct defined above and E/S is entrepreneurial competencies which Man et al (2002:132) further breaks down to six entrepreneurial competency areas identified from literature namely:

- Opportunity: related to recognizing and developing market opportunity through various means.
- Relationship: related to person-to-person or individual-to-group based interactions, cooperation, trusts, contacts, connections, persuasive ability, communication, interpersonal.
- Conceptual: Related to different conceptual abilities, decision-making skills, understanding complex information, risk taking, innovativeness.

- Organizing: related to the organization of different internal and external human, physical, financial and technological resources, including team building, leading employees, training, controlling.
- Strategic: related to setting, evaluation and implementing the strategies of the firm.
- Commitment competencies: driving the entrepreneur to move ahead with the business.

Ucbasaran et al (2004:440) identified three distinct capabilities that the entrepreneur requires to succeed:

- The entrepreneurial role, which assists with business development.
- The managerial role, which assists with functional needs which include human resources management, marketing, operations, administration, finance and planning.
- The technical role, which is needed for functioning and producing products.

Ucbasaran et al's model can be represented in a mathematical form as equation **2.8** below:

$$\textbf{Success} = U(\textbf{E/S, B/S, Technical}) \qquad (2.8)$$

Darroch & Clover (2005:325) outlines their model describes SME success as a function of preference for self employment, motivation, entrepreneurship skills (energizing behaviours) and business skills, moderated by background and external firm-level factors. Darroch & Clover's model can be represented in a mathematical form as equation 2.9 below:

$$\textbf{Success} = D(\textbf{motivation, E/S, B/S}) \qquad (2.9)$$

Perks & Struwig (2005:173) list personal, technical, business operations and management skills as the four categories of skills that are needed to ensure entrepreneurial success. Perks and Struwig's model can be represented in a mathematical form as equation **2.10** below:

$$\textbf{Success} = P(\textbf{personal, management, B/S, technical}) \qquad (2.10)$$

From the above discussion and the table summary below it is clear that the van Vuuren & Nieman (1999) model has identified most of the skill categories that are included by the other seven authors (Glancey et al, 1998; Erikson 2002; Wickham, 2001; Man et al, 2002; Ucbasaran et al, 2004; Darroch & Clover, 2005 and Perks & Struwig, 2005).

Table 2.2: Summary of the skills constructs as per the 8 models reviewed

Skills	Glancey et al, 1998	van Vuuren & Nieman, 1999	Wickham, 2001	Erikson, 2002	Man et al, 2002	Ucbasaran et al , 2004	Darroch & Clover, 2005	Perks & Struwig, 2005
business skills	x	x	x	x			x	x
strategy and business plans		x			x	x		
operations		x				x		
financial		x			x	x		
marketing		x			x	x		
human resources		x			x	x		
legal		x						
communication		x			x			x
entrepreneurial skills		x		x		x	x	
industry / market opportunity	x	x	x	x	x	x		x
risk		x			x	x		
creativity		x						
innovation		x			x			
role models		x						
gathering of resources				x				
personal skills			x		x			x
decision making		x			x			
achievement motivation & commitment	x	x	x	x	x		x	x
inner control		x						
persistence		x						
leadership		x			x			
problem solving		x						x
ability to learn		x				x		
networking					x			
literacy and numeracy								x
technical skills					x	x		x
product/ service development						x		
product / service production						x		

Thus this study adopts the van Vuuren & Nieman (1999) equation 2.2 format in formulating the integrated model as the conceptual basis for the exploratory study to examine the relationships between the skill variables determining the entrepreneurial process. However, the van Vuuren & Nieman (1999) model is integrated with the other 7 models to include all the other skills constructs identified by the other seven authors (Glancey et al, 1998; Erikson 2002; Wickham, 2001; Man et al, 2002; Ucbasaran et al, 2004; Darroch & Clover, 2005 and Perks & Struwig, 2005) reviewed in the literature study. The final integrated model has incorporated the following adaptations:

- Following Erikson's (2002) model the ability to gather resources are included as one of the skills within the entrepreneurial skills construct.
- The integrated model broadens the motivation skills to include all personal skills identified by Man et al (2002) and Perks and Struwig's (2005). Therefore a new construct called "Personal skills (P/S)" is defined as including motivation (need for achievement), problem solving, numeracy and literacy, and communication skills. This integrated model acknowledges that the motivation is the dominating factor in the personal skills construct.
- Another category "Technical skills (T/S)" is identified separate from the business skills following the models by Ucbasaran et al (2004) and Man et al (2002). While it is clear that an entrepreneur needs more than just technical skills (Cornwall & Naughton, 2003:67), technical skills are said (Perks & Struwig, 2005:172) to be a precondition for starting any business (because the entrepreneur must create things well). Therefore the technical skills can be considered as a multiplicative construct, instead of an additive construct as part of the portfolio of business skills.

On the basis of the above literature review the study posits that all skills can be divided into three business areas:

- **Product and service differentiation**. This includes the ability to ensure the product or service is produced at an acceptable quality. This depends entirely on technical skills.
- **Enterprising competencies**. These abilities are responsible for the booster/energizer/enterprising functions which assist with business development and motivation. This depends on entrepreneurial and personal skills.
- **Functional capabilities**. These abilities assist the entrepreneur to function the business and find the balance between opportunity, resources and the entrepreneurial team. These depend on business management skills.

Identifying these three categories are supported by literature that identified these three distinct capabilities areas as interdependent and complementary categories required by entrepreneurs in order to succeed (Schamp & Deschoolmeester, 1998:143; Rwigema & Karungu, 1999:109; Viviers et al, 2001:6; Kodithuwakhu & Rosa, 2002:431).

Therefore the integrated model posits that the increase in entrepreneurial performance is dependant on the availability of product differentiation competencies and enterprising competencies and functional competencies. Since product differentiation competencies are solely dependant on technical skills, functional competencies on business skills and enterprising competencies on personal and entrepreneurship skills, the integrated model for increasing entrepreneurial performance is best represented by equation **2.11** below:

$$\uparrow E/P = (a.P/S \times b.E/S) \times c.(B/S) \times d.(T/S) \qquad (2.11)$$

Where:

- ↑E/P is defined as entrepreneurial performance which is based on starting a business, utilizing an opportunity and growing the business idea.
- P/S is Personal skills, which includes the following: problem solving, numeracy and literacy, motivation (need for achievement), and communication.
- E/S is Entrepreneurial skills, which cover the ability to turn their business ideas into feasible business opportunities, to start and to grow a business enterprise.
- B/S is Business skills, which cover all the conventional management areas in a business.
- T/S is Technical skills, including vocational and specialized expertise that enables the business to develop and produce the products and services at the acceptable quality.

This integrated model as described by equation 2.11 forms the normative theory for the empirical research. The next section identifies all the skills that form part of each of the four skills category constructs (T/S, B/S, P/S and E/S) in the three business areas (product, enterprising and functional) as described in the integrated model of equation 2.11.

2.4.1 Personal skills (P/S)

Most literature on entrepreneurship identifies personal skills or generic skills as those skills that are universal and apply across a variety of careers and jobs/occupational groups and are not specific to a particular industry or vocation (Tustin, 2003:26; Perks & Struwig, 2005:172). Since traits were identified in the literature as important to entrepreneurship, the

study focused only on those personal traits that are also capabilities. The study defines the personal skills construct to include following skills which were discussed in the section on the entrepreneurial character above:

- Motivation
- Ability to learn
- Decision making
- Adapting to change
- Time management skills
- Negotiating skills
- Problem solving

These factors can also be considered as personal capabilities, instead of just innate traits, because individuals can learn to use these abilities effectively. Other personal capabilities that were identified in the literature review as necessary for SME success included communication, literacy and numeracy, as discussed briefly below:

- **Communication**

This study includes communication as a personal skill needed for business. This follows Botha (2006:71) and Rwigema & Venter (2004:50) who identify communication skills required to gain access to relevant information, to gather information and to handle all information necessary between the entrepreneur, employees, customers, suppliers and all other stakeholders. Communication skills include the ability to communicate with other people, basic customer service skills, basic administration, clerical accounting, listening, talking, writing memos, letters, memoranda, reports, newsletters and policy manuals as well as being able to communicate over language and cultural barriers plus information sharing (Perks & Struwig, 2005:173; Darroch & Clover, 2005:326).

- **Literacy and numeracy**

Basic reading and writing skills and basic numeracy (addition and subtraction) are needed in running a business (Tustin, 2003:26, Perks & Struwig, 2005:172).

2.4.2 Entrepreneurial skills (E/S)

This study incorporates entrepreneurial skills category. Entrepreneurial skills are defined by Nieman (2001:446) as those skills which enhance entrepreneurial performance. This

supports Wickham's definition (2001:41). The skills (opportunity alertness, innovation, creativity, ability to interpret successful entrepreneurial role models and risk taking) that were identified as part of entrepreneurship skills by van Vuuren & Nieman (1999) are incorporated into the entrepreneurial skills construct. This study adds "ability to gather resources" as another skill to be considered as entrepreneurial skills following Erikson's (2002) model.

All these skills are considered as entrepreneurial capabilities instead of innate traits because individuals can be taught how to use these effectively.

2.4.3 Business management skills

Business skills are required to run the business on a daily basis (Botha, 2006:70). One of the dictionary definitions of good management is the skilful use of materials and time towards the achievement of business objectives (Sackett, Rose & Adamson, 2003:298). Business skills cover all the conventional management training areas in a business (van Vuuren & Nieman, 1999:4; Monk, 2000:12). Organizations that are well managed develop a loyal customer base, grow and prosper (Nieman, 2006:19; Mughan et al, 2004:428).

Having inadequate business management skills is one of the most prominent reasons for failure of SMEs (Viviers et al, 2001:5; Monk, 2000:12). It is possible to identify various skills of effective and efficient managers who run successful businesses (Van Dyk, Nel, van Loedolff & Haasbroek, 2001:37). Each of these is discussed below:

- **General management skills**

General management skills are skills that assist with knowing how a business works and how it must be managed. These skills enhance the performance of the entrepreneur and include MIS, organizing, leading, motivating, budgeting, handling security, safety; clerical skills, administration, customer service skills and control (Botha, 2006:71; Tustin, 2003:26; Gartner et al, 1999:219).

- **Planning skills**

Planning skills cites as important for SME success include goal setting, careful planning of time and resource usage as well as the business plan development (Friedrich et al, 2003:2; Czinkota & Ronkainen, 2003:49; Botha, 2006:72).

- **Financial management skills**

Financial management abilities are knowledge of the resources required to run the type of business the venture is in and the ability to monitor and control these resources (Gartner et al, 1999:219; Ayotte, 2007:179). Financial management includes knowledge and understanding of accounting principles, financial planning, knowledge of how to find alternative sources of finance, bookkeeping, cash flow management, credit management, cost management, payroll, stock control, supplier payments, maintaining financial records and accounts, tax management and computations, dealing with computerized accounting systems, profit versus income performance measurement, realistic economic estimates, drafting and interpreting financial statements including income, balance and cash flow statements and general knowledge of the sources of finance (Monk 2000:12; Nieuwenhuizen & Kroon, 2002:162; Perks & Struwig, 2005:173; Tustin, 2003:26, Botha 2006:72).

- **Marketing skills**

Marketing skills important for SME success are about the knowledge of customers and how to sell to them (Gartner et al, 1999:219). Marketing skills include conducting market research and analysis, understanding the needs of the market, devising a marketing strategy, marketing planning, identifying the marketing mix (price, product, place, promotion, location, people and process), identifying a target market, selecting a selling strategy for that market and positioning of the business in that market, quality driven client service based on client needs, selling, product development, promotions, advertising, merchandising, public relations, e-commerce, competitor knowledge, analysis and developing strategies to surpass the competition (Monk, 2000:12; Tustin, 2003:26).

- **Networking skills**

A network is a specific type of relation linking a defined set of persons, objects or events or a set within which certain types of mutually rewarding relationships exist, from where an entrepreneur can obtain resources and get critical support for the development and growth of a business (Nhlengethwa, 2003:1; Drakopoulou Dodd & Patra, 2002:117; Harris & Wheeler, 2005:187). Resources that can be obtained through networking include information about business opportunities, innovation, referrals, business linkages, shared costs, networks of business partners, professionals, technicians, specialists, generalised consultants, the supply chain, potential contractors, bankers, distributors, clients, customer linkages, sector-based trade associations, professional memberships, chambers of commerce, institutional

ties as well as networks of collaboration and coordination (Jansen, 2003; Zhao & Aram, 1995:349; Li & Ferreira, 2006:49; Batjargal, 2006:305).

Networks can be categorized as those that provide personal support, professional support (entrepreneurial networks) or public support (social networks) (Jansen, 2003; Hite, 2005:114; Nhlengethwa, 2003:1; Jack & Robson, 2002:1; Markman & Baron, 2003:292; Drakopoulou Dodd & Patra, 2002:117). Successful entrepreneurs carefully develop beneficial networks at personal, professional and business levels (Rwigema & Venter 2004:70; Batjargal, 2006:305).

- **Supply value chain management skills**

Supply value chain management skills are defined as those abilities needed to secure sources of supply, control stock, identifying raw materials needed, procuring suppliers, wholesalers and retailers as well as buying and securing all required inputs (Zhao & Aram, 1995:349; Gundry & Welsch, 2001:457).

- **Operational skills**

Operational skills are defined as the know-how to make/produce the products and services to a given standard (Gartner et al, 1999:219). Operational management includes production management/trading skills (customer service, marketing, safety and security), process management, quality control, seeking competitive advantage, meeting and surpassing quality of competitors, (Nieuwenhuizen & Kroon, 2002:159; Monk, 2000:12; Tustin, 2003:26; Botha, 2006:71).

- **Human resources management skills**

Human resources are the people within the business (Botha, 2006:71). Human resource management is defined as a method used to identify, select, develop, retain and motivate a workforce that possess superior abilities, that apply their abilities in their work-related activities and whose work-related activities result in these firms achieving superior intermediate indicators of firm performance (Way, 2002:766; Gartner et al, 1999:219).

HR management includes recruitment, selection, training and development of employees on a continuous basis, interpersonal relations, handling of employees, setting of key performance areas (KPAs), performance reviews, arranging teamwork, giving positive and

constructive feedback, assigning tasks, resolving conflict, allocating resources, motivating employees and delegating (Thornhill & Amit, 2003:506; Monk, 2000:12).

- **Legal skills**

Legal skills include the ability to deal with business forms, contractual law, understand the necessity for ethical behaviour within a business as well as the ability to register trademarks, logos and designs (Botha, 2006:71).

- **Business systems and processes skills**

Business system skills are those skills that allow management to set up and run procedures, processes, and record keeping towards effectiveness and efficiency (Tustin, 2003:26). McKeiver & Gadenne (2005:513) note that in practice that the majority of SME are following a resistant strategy when it comes to business systems.

Business systems include organizational structures; record keeping and information systems; planning and control systems; financial and accounting systems; marketing and customer management systems; operations systems; administration systems; communication systems; HR systems including grievance procedures, disciplinary procedures, effective HR performance and reward systems (MacMahon & Murphy, 1999:26; Nieman, 2006:198). Important record keeping includes incoming stock purchase records, stock-take records, inventory books, inventory control, organizational management, clerical accounting, letters, filing systems, customer records systems, accounts payable, payroll records, cash records, fixed assets records and insurance register (Nieuwenhuizen & Kroon, 2002:159).

Record keeping systems are important as they provide the SME with the information necessary to run the business successfully and to detect fraud. An effective record keeping system makes it possible for the SME to evaluate the business on a weekly/monthly basis and to focus on those things needed. (Nieman, 2006:198).

- **ICT Skills**

ICT skills are defined as those skills that allow the entrepreneur the optimal use of IT, including the computer applications which give businesses strategic competitive advantage, as well as everyday business operations (Baard & Van den Berg, 2004:2; Tustin, 2003:26). ICT skills include typing and keyboard skills, basic internet and email skills, computer

programming, computer system analysis, information and communication technology, network design, website development, hardware support, software support, computer assistance, computer equipment operation, technology and ICT applications. (Monk, 2000:12; Marri, Gunasekaran & Kobu, 2003:153; Lawless, Allan, & O'Dwyer, 2000:312).

Appropriate ICT applications can assist SMEs to respond quickly to the external environment; tap into global information, networks and markets; gain in efficiency and business performance; increase managerial competence; reduce costs; increase turnover; increase profitability; reduce work in progress; improve the working environment; improve effectiveness and ability to retain existing clients plus achieving more flexibility and speed (Chapman, James-Moore, Szczygiel & Thompson, 2000:353; OECD, 2002a:13; Marri et al, 2003:152; Goolnik, 2002; SME survey, 2003; Bridges, 2002:3; Romijn, 2001:63).

- **Technical skills**

Technical or vocational skills are defined as those specific skills needed to work within a specific occupation. Technical skills include expertise; the knowledge of the industry, its standards and practices; the ability to use the tools, procedures and techniques of the specified field, the understanding of how specific things work; product/service-specific knowledge that enable one to know what the particular product could do and what it could be used for; process knowledge or how to manufacture the relevant product and all steps that need to be taken to develop and produce the product or perform the tasks necessary to render the service (Tustin, 2003:26; Perks & Struwig, 2005:172; Gartner et al, 1999:219; Nieuwenhuizen & Kroon, 2003:138; Honig, 1998:371; LeBrasseur, Zanibbi & Zinger, 2003:315).

For example, technical skills for the textile and clothing industry include: tailoring, dressmaking, sewing, embroidery, fibre preparation, upholstering, weaving, knitting, crocheting, pattern making, cutting, bleaching, dyeing, finishing, shoemaking fur and leather preparing as well as the operating and cleaning of related machinery (Strydom & Tustin, 2003:2; Tustin, 2003:39).

2.5 Integrated model and propositions

As indicated in chapter 1 the primary objective of this study is to do a critical analysis of the skills (or capabilities) that are key determinants of success in the entrepreneurship process

and SME development. From the literature review above the researcher has presented an integrated model for increased entrepreneurial performance that identifies a certain set of competencies. Based on this integrated model the study posits that the success of an SME will be attributable to recognizing the importance of a set of skills required for SME success and being competent in those skills. Furthermore the study posits that having the right skills is dependant on having received training in that skill.

Therefore the following propositions are presented for investigation:

Proposition A: Successful SMEs are not likely to consider skills to be more important for business than less successful SMEs.

Proposition B: Successful SMEs are not likely to be more competent in skills than less successful SMEs.

Proposition C: Successful SMEs are less likely to have been trained in skills than less successful SMEs.

From the above literature search, skills, competencies and abilities that affect the success of SMEs can be summarized in four categories of skills, namely technical skills (T/S), personal skills (P/S), business management skills (B/S) and entrepreneurship skills (E/S), as portrayed in the integrated ↑E/P model represented by equation **2.11** below:

$$\uparrow E/P = a.P/S \times b.E/S \times c.B/S \times d.T/S \qquad (2.11)$$

Thus to reach sub-propositions, the skills constructs are further divided into skills within that construct category. Technical skills stand as a complete construct and cannot be subdivided any further.

From the literature review above, the personal skills construct can be represented by equation **2.12** below:

$$P/S = a.PM \times (1 + e.PA + f.PC + g.PD + h.PG + i.PL + j.PN + k.PP + l.PT) \qquad (2.12)$$

Where:

- PM = Motivation (need for achievement)
- PA = adaptability to change
- PC = Communication
- PD = Decision making
- PG = Negotiating
- PL = Learning abilities

- PN = Numeracy and literacy
- PP = Problem solving
- PT = Time management
- e, f, g, h, i, j, k and l are constant coefficients

Substituting P/S equation 2.12 into integrated model equation 2.11 above would read as Equation **2.13** below:

↑E/P = a.PM x (1 + e.PA + f.PC + g.PD + h.PG + i.PL + j.PN + k.PP + l.PT) x b.E/S x c.B/S x d.T/S (2.13)

If all the other personal skills are declared to be insignificant to entrepreneurial performance in comparison with motivation, then it can be assumed that the PP, PN and PC factors become very small towards zero, with the coefficients e, f, g, h, I, j, k and l going towards zero. Thus equation 2.13 becomes equation 2.14 below:

↑E/P = a.PM x (1 + 0.PA + 0.PC + 0.PD + 0.PG + 0.PL + 0.PN + 0.PP + 0.PT) x b.E/S x c.B/S x dT/S (2.14)

Simplifying equation **2.14** brings it back to the integrated model in equation 2.11.

↑E/P = (a P/S x b E/S) x c B/S x d.T/S (2.11)

From the literature review above the construct entrepreneurial skills can be presented as equation **2.15** below:

E/S = (m.EO x (1 + n.EC + o.EI)) x (1 + p.EM) x q.EG x r.(1/(1-ER)) (2.15)

Where:

- E/S = Entrepreneurial skills, covering the ability to turn their business ideas into feasible business opportunities, to start and to grow a business enterprise.
- EC = Creativity
- EI = Innovation
- EO = Opportunity recognition
- EM = Role model interpretation
- EG = Ability to gather and control resources
- ER = Calculated risk taking with unit as a percentage
- m, n, o, p, q and r are constant coefficients

This equation uses a combination of multiplicative functions and additive functions. This represents opportunity alertness as a function of opportunity recognition, creativity and innovation, as illustrated in the equation **2.16** below:

$$\textbf{Opportunity alertness} = m.EO \times (1 + n.EC + o.EI) \qquad (2.16)$$

If there exists an opportunity then, even if the entrepreneur is neither creative nor innovative, there still exist a chance of performance. However, if there is no viable opportunity, then creative and innovative skills are useless. Innovation and creativity are said to be part of the portfolio of the entrepreneur's skills that assist with opportunity identification; thus they are represented as additive. It is evident that creativity, innovation and opportunity finding are key entrepreneurial skills necessary for identifying and developing an opportunity in the market, thus these are grouped into one category called opportunity alertness.

Because opportunity alertness **m.EO x (1 + n.EC + o.EI)** and ability to gather resources (**q.EG**) form part of the core of entrepreneurship process, they are presented as multiplicative. The model represents risk propensity as a function of opportunity alertness and resources, thus the combination of additives and inverse multiplicative functions, as illustrated in equation **2.17** below.

$$\textbf{Risk propensity} = r.(1/(1-ER)) \qquad (2.17)$$

The model assumes that the percentage unit of risk is between 0%, which stands for total risk aversion, and 100%, representing total careless risk taking, normally associated with gambling. When an entrepreneur is totally risk averse the risk propensity = 1, meaning that the entrepreneur's ability to enhance present resources or opportunity through risk taking is nullified (1 x given resources and opportunity) and the added returns are zero. If the entrepreneur is totally careless, the risk propensity goes towards infinity, implying that the returns would be extremely high (10 x given resources and opportunity) just before complete chaos (90% risk), with the system going totally out of control if the entrepreneur is 100% careless. Most successful entrepreneurs taking moderate risks (50%) would give some moderate returns on given resources and opportunity.

From the discussion above, the construct business skills can be presented as equation **2.18**:

$$B/S = (s.BF \times t.BM \times + u.BH) \times (1 + v.BB + w.BG + x.BI + y.BL + z.BN + \alpha.BO + \beta.BP + \chi.BR + \delta.BV) \qquad (2.18)$$

Where

- BB = Business systems management
- BG = General management
- BF = Financial management
- BH = Human resources
- BI = ICT skills
- BL = Legal
- BM = Marketing
- BN = Networking
- BO = Operational
- BP = Planning
- BR = Research and development
- BV = Value chain management
- s, t, u, v, w, x, y, z, α, β, χ, δ are constants

This equation uses a combination of multiplicative functions and additive functions. Marketing, financial and human resource management skills are considered key business skills that correspond to the opportunity (marketing), the resources (finance) and the entrepreneurial team (human resources). Without these three aspects the business would collapse, therefore they are represented as multiplicative. The rest of the business skills are represented as additive, as they are said to form part of the portfolio of the entrepreneur's skills that assists with management. To get the detailed integrated performance model all the constructs are substituted into the equation **2.11**.

$$\uparrow E/P = a.P/S \times b.E/S \times c.B/S \times d.T/S \quad (2.11)$$

Where

$$P/S = aPM \times (1 + e.PA + f.PC + g.PD + h.PG + i.PL + j.PN + k.PP + l.PT) \quad (2.12)$$

And

$$E/S = (m.EO \times (1 + n.EC + o.EI)) \times (1 + p.EM) \times q.EG \times r.(1/(1-ER)) \quad (2.15)$$

And

$$B/S = (s.BF \times t.BM \times + u.BH) \times (1 + v.BB + w.BG + x.BI + y.BL + z.BN + \alpha.BO + \beta.BP + \chi.BR + \delta.BV) \quad (2.18)$$

Therefore the detailed integrated entrepreneurial performance model (E/P) becomes equation **2.19** below:

$$\uparrow E/P\text{-}d = a.PM \times (1 + e.PA + f.PC + g.PD + h.PG + i.PL + j.PN + k.PP + l.PT)) \times b.[\, m.EO \times (1 + n.EC + o.EI)) \times (1 + p.EM\ ) \times q.EG \times r.(1/(1\text{-}ER))\ ] \times c.((s.BF \times t.BM \times u.BH) \times (1 + v.BB + w.BG + x.BI + y.BL + z.BN + \alpha.BO + \beta.BP + \chi.BR + \delta.BV)\ ) \times d.T/S \quad (2.19)$$

This can be simplified into the multiplicative constructs and additive constructs as following:

$$\uparrow E/P = [a.PM \times m.EO \times q.EG \times (s.BF \times t.BM \times u.BH) \times d.T/S] \times [(1 + e.PA + f.PC + g.PD + h.PG + i.PL + j.PN + k.PP + l.PT)) \times (1 + n.EC + o.EI)) \times (1 + p.EM\ ) \times r.(1/(1\text{-}ER) \times (1 + v.BB + w.BG + x.BI + y.BL + z.BN + \alpha.BO + \beta.BP + \chi.BR + \delta.BV)] \quad (2.20)$$

This can be summarized into the simplified integrated model described by equation **2.21 to 2.23** as:

$$\uparrow E/P = F(\text{key skills}) \times (1 + H(\text{supporting skills})) \quad (2.21)$$

With:

$$F(\text{Key skills}) = [a.PM \times m.EO \times q.EG \times (s.BF \times t.BM \times u.BH) \times d.T/S \quad (2.22)$$

$$H(\text{Supportive skills}) = [(1 + e.PA + f.PC + g.PD + h.PG + i.PL + j.PN + k.PP + l.PT)) \times (1 + n.EC + o.EI)) \times (1 + p.EM\ ) \times r.(1/(1\text{-}ER) \times (1 + v.BB + w.BG + x.BI + y.BL + z.BN + \alpha.BO + \beta.BP + \chi.BR + \delta.BV)] \quad (2.23)$$

Where:

- PA = adaptability to change
- PP = Problem solving
- PN = Numeracy and literacy
- PM = Motivation (need for achievement)
- PC = Communication
- PD = Decision making
- PG = Negotiating
- PL = Learning abilities

- PT = Time management
- BB = Business systems management
- BG = General management
- BF = Financial management
- BH = Human resources
- BI = ICT skills
- BL = Legal
- BM = Marketing
- BN = Networking
- BO = Operational
- BP = Planning
- BR = Research and development
- BV = Value chain management
- EC = Creativity
- EI = Innovation
- EO = Opportunity recognition
- EM = Role model interpretation
- EG = Ability to gather and control resources
- ER = Calculated risk taking – unit is percentage
- T/S = Technical skills
- a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z, α, β, χ and δ are constant coefficients

Key skills are represented by the multiplicative function, signifying that the absence of any one of the elements such as motivation, opportunity, ability to gather resources, financial management, human resource management, marketing and technical skills will lead to zero performance. Weakness in these skills will decrease effectiveness in overall performance of the venture. This also means that the increase in the capacity of any of these skills can lead to an increase in the entrepreneurial performance of the entrepreneur.

On the other hand, support skills are represented by additive functions, signifying that the absence of any of these skills will reduce performance yet not completely destroy the business. When all the supportive skills are absent, ↑E/P = function of the key skills. This also means that increasing the capacity of any of these skills can enhance performance.

Based on the simplified integrated model above the study posits that success of SMEs will be attributable to entrepreneurs having all the key seven skills, namely motivation, opportunity alertness, ability to gather and control resources, financial management, human resource management, marketing and technical skills. Thus the study propositions are:

Technical skills

Proposition T1: Successful SMEs are not likely to consider technical skills to be more important for business than less successful SMEs.

Proposition T2: Successful SMEs are not likely to be more competent in technical skills than less successful SMEs.

Personal Skills

Propositions P1: Successful SMEs are not likely to consider the following personal skills to be more important for business than less successful SMEs:

- Motivation skills
- Adaptability to change
- Problem solving
- Numeracy and literacy
- Motivation (need for achievement)
- Communication
- Decision making
- Negotiating
- Learning abilities
- Time management
- Numeracy skills
- Communication

Propositions P2: Successful SMEs are not likely to be more competent in the following personal skills than less successful SMEs:

- Motivation skills
- Adaptability to change
- Problem solving
- Numeracy and literacy
- Motivation (need for achievement)

- Communication
- Decision making
- Negotiating
- Learning abilities
- Time management
- Numeracy skills
- Communication

Business skills

Propositions B1: Successful SMEs are not likely to consider the following business skills to be more important for business success than less successful SMEs:

- Business systems
- Business linkages
- Computer literacy
- Financial management
- Human resource management
- Legal
- Marketing
- Operations management
- Research and development
- Strategy and business planning
- Supplier management

Propositions B2: Successful SMEs are not likely to be more competent in the following business skills than less successful SMEs:

- Business systems
- Business linkages
- Computer literacy
- Financial management
- Human resource management
- Legal
- Marketing
- Operations management
- Research and development

- Strategy and business planning
- Supplier management

Entrepreneurial skills

Propositions E1: Successful SMEs are not likely to consider the following entrepreneurial skills to be more important for business than less successful SMEs:

- Opportunity identification
- Creativity
- Innovation
- Risk taking
- Role models
- Securing and controlling resources

Propositions E2: Successful SMEs are not likely to be more competent in the following entrepreneurial skills than less successful SMEs:

- Opportunity identification
- Creativity
- Innovation
- Risk taking
- Role models
- Securing and controlling resources

Variance in demographics

Propositions D1: Statistically significant variance does not exist regarding the following personal demographics:

- Age (less or equal to 40 years, older than 40 years)
- Education (matric and below; above matric)
- Ethnic group (Black, Indian, Coloured, White)
- Gender (Male, Female)
- Work experience (0 to 2 years, 2 to 4 years, 4 to 6 years, over 6 years)
- Region (regions 1, 2 or 3)
- Subsector (apparel, other sector either than apparel)
- Form of business (unregistered, cc, company)
- Place where business is operated (city centre, township, suburb, other)

2.6 Conclusion

The chapter started with a brief review of international research to identify all the variables (external and internal factors) that are presented as crucial for SME success in order to outline the context of skills importance in entrepreneurship as given in the table 2.3 below:

Table 2.3: Factors affecting the performance of SMEs

Exogenous/external factors	Endogenous/internal factors
Macro Economic factors • Geographic area and region • Density • Inflation • Interest rates • Unemployment • Exchange rates	**Company demographics factors** • Size of firm • Age of firm • Organizational structure • Community networks • Product/service differentiation
Political-Institutional factors • Macro-economic policies • The business environment • The judiciary • Bureaucracy • Public support	**Human demographics factors** • Age • Gender • Family background • Exposure to role models
Socio-Cultural factors • Access to public infrastructure • Access to money/capital; technology; labour and other resources • Crime • Health • Culture • Role models	**Previous Experience factors** • Education • Training • Work experience • Business ownership • Industry specific
Market Opportunity factors • Demand for supply • Competition • Access to markets • Location • Market uncertainty	**Human Capital factors** • Personal characteristics • Capabilities, abilities and skills (this particular factor is the focus of this study)

This chapter's main focus was to identify a set of capabilities, abilities and skills that are important to the starting, running and growing of a business, and if lacking could act as barriers to SME development and ultimately lead to failure. The literature search revealed interdependent and complementary competencies that could be clustered into four categories of skills, namely technical skills (T/S), personal skills (P/S), business management skills (B/S) and entrepreneurship skills (E/S). From this model the study posits

that the success of an SME will be attributable to the entrepreneur's having seven key skills categories: motivation, opportunity alertness, ability to gather resources, financial management, human resource management, marketing and technical skills, as shown in table 2.4 below:

Table 2.4: Skills needed for increasing entrepreneurial performance

PERSONAL SKILLS (P/S)		**BUSINESS MANAGEMENT SKILLS (B/S)**		**ENTREPRENEURIAL SKILLS (E/S)**	
Key skills		**Key skills**		**Key skills**	
PM	**M**otivation (need for achievement)	BM	**M**arketing management	EO	**O**pportunity recognition
		BF	**F**inancial management	EG	Ability to **G**ather & control resources
		BH	**H**uman resources management		
Supportive skills		**Supportive skills**		**Supportive skills**	
PA	**A**daptability to change	BG	**G**eneral management	EC	**C**reativity
PC	**C**ommunication	BI	**I**CT skills	EI	**I**nnovation
PD	**D**ecision making	BL	**L**egal	EM	Role **M**odel interpretation
PG	**N**egotiating skill	BN	**N**etworking	ER	Calculated **R**isk taking
PL	**L**earning abilities	BO	**O**perational	**TECHNICAL SKILLS (T/S)**	
PN	**N**umeracy and literacy	BP	**P**lanning		
PP	**P**roblem solving	BR	**R**esearch and development		
PT	**T**ime management	BS	Business **S**ystems		
		BV	**V**alue chain management		

The key skills enable the entrepreneurs of the SMEs to motivate themselves and their teams, identify market opportunities, gather the necessary resources, produce a high-quality service or product; and manage the business effectively and efficiently. Without these the business will ultimately flounder.

The next chapter (chapter 4) investigates these skills in terms of their importance in the entrepreneurial steps. Furthermore chapter 4 will investigate training as a method of acquiring these key skills and thereafter develop propositions linking the identified skills and training. This will complete the exploratory study and finalize the model that is being prepared for empirical testing.