

Self-employment and the required skills

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ABSTRACT

Unemployment in South Africa increased by around two percentage points between 1999 and 2004 and for this reason job creation is critical in South Africa (Statistics South Africa). Against this background self-employment is regarded as one of the driving forces of economic growth in transitional countries. South Africa urgently needs to create jobs, and cannot afford to have a high failure rate among the self-employed, as this category of worker often creates job opportunities for others as well. Many researchers are of the opinion that growth-oriented firms are truly entrepreneurial, and that they differ in important respects from small firms in general.

Many of the characteristics normally associated with entrepreneurs (*inter alia*, internal locus of control, risk taking, creativity, self-confidence, a need for independence, commitment, and high energy levels) have also been found to be prevalent among successful managers. However, entrepreneurs possess higher levels of growth-oriented traits than do managers in general. Growth must be carefully planned for, and it is a decision made by some to pursue vigorously, by others to pursue slowly, and by yet others to avoid. Firms directed by entrepreneurs are generally committed to growth as a fundamental strategic aim. The focus in this study is on skills that can contribute to growth, job creation, and entrepreneurship.

In a comparison of self-employed graduates with a growth orientation to those who do not intend to grow their firms, it was observed that those who had planned growth had also acquired certain skills to a greater extent than those

that did not plan to grow their firms. Important skills to have in self-employment were identified as technical skills, perseverance, communication skills, managerial skills, leadership, innovation, pro-activity, financial skills, and information-seeking skills. All the listed skills were more prevalent among those who had the intention to grow their firms than those who did not have this intention, with the exception of technical skills.

INTRODUCTION

Job creation is critical in most economies of the world, but particularly so in South Africa where unemployment is increasing. Unemployment estimated at 25.8% at the time of the October Household Survey in 1999 was as high as 27.8% in 2004 (Statistics South Africa). Many see self-employment as the driving force of economic growth in developing countries, as it has brought about significant growth in developed countries (Jennings, 1994: 298). In the United States for instance, about one in seven of the working population is self-employed (Timmons, 1994: 3). South African employment growth is typical of a developing country, in that growth in self-employment has been 15 % per annum since 1991 (CSS, 1991 and Statistics South Africa, 1996). Although new firms are the primary sources of new employment opportunities worldwide (Schutte, Bennett, and Boshoff, cited in Boshoff, Theron and Schutte, 1993:1), failure is the rule in self-employment,

not the exception (Jennings, 1994: 303). For instance, some 400 000 small firms in the United States fail each year, and by their tenth year of existence, almost 90% of small firms have failed. The question has become not one of quantity of new firms, but of quality of start-ups. There is strong competition in most industries, and satisfying the needs of clients demands a sophisticated entrepreneur (Fazey, 1997: 156). As entrepreneurs of the future increasingly move into higher-value service firms, they will also have to attain higher levels of education and skills to be able to interact with foreign suppliers and customers if they are to succeed. Entrepreneurs should thus be more globally focused, better educated, and more focused on service delivery (Kurlantzick, 2004) if they are to succeed. South Africa urgently needs to create jobs and cannot afford to have a high failure rate among the self-employed, as one of the "jobs" of the self-employed is to create job opportunities for others.

AN OVERVIEW OF ENTREPRENEURIAL SKILLS

Multiple skills are required if people are to become entrepreneurs (Fazey, 1997: 164). Education programmes that teach skills which enhance international competitiveness are needed to build a more capable entrepreneurial sector that can compete more effectively in the international market (Naudé, 1998). A number of studies confirm the positive impact of education on economic growth. However, evidence is accumulating that it is the quality rather than the quantity of education that is important for economic growth (Naudé, 1998).

The Secretary's Commission on Achieving Necessary Skills (SCANS) report by the US Department of Labour indicated that *business and industry have stressed the need for both non-technical and technical skills* (SCANS, 1991). However, the skill requirements appear to vary at different levels of management in a firm. More technical skills are required at lower levels, with human relations skills becoming more important in middle management, and conceptual skills most critical in top management (Hunsicker, 1978: 618-620). Research carried out as far back as 1976 by the Graduate School of Business at the University of Cape Town suggested that finance and marketing skills were the most important skills in the business world, closely followed by human relations skills (Beyers, 1976). A more recent study conducted by the College of Business Administration at Rider University identified interpersonal skills as the most important characteristic required in various firms (Davis, Riley and

Fisher, 2003: 18). A study by Porterfield and Forde (2001) revealed that Human Resource directors perceived communication skills as the most important skill in the modern working environment.

Technical skills

Technical skills are used in a particular subject, art, or craft, or its techniques (Concise Oxford English Dictionary, 2004: 1478). Technical skills are unique to each venture or field of specialisation (Timmons, 1994: 222) and entail "the ability to apply specific knowledge, techniques and resources successfully in the execution of an assignment" (Marx *et al.*, 1998: 356). Thorough technical knowledge of a product or service is thus required for success in a firm. Technical skills alone, however, are not sufficient to ensure entrepreneurial success. Would-be entrepreneurs who have the technical skills and have perceived a business opportunity, often lack the required entrepreneurial expertise. Multiple skills such as, *inter alia*, marketing and financial management skills, are necessary for successful entrepreneurship, in addition to technical skills (Frazey, 1997: 164). Apart from formal training and education, applicable working experience is a prerequisite for potential entrepreneurs. Honig (1998: 372) found that vocational training enhanced the profitability of a firm, and that years of experience in a firm were consistently positive and strongly associated with increasing profits. Business, however, is more than expertise in a field. Business always requires focus on the customer (Shuman, 1999). Not just specific skills, but generic competencies are increasingly required, because of technological development and changes in the business environment. In other words, not only skills to perform particular tasks are required, but also new skills and techniques to cope with changes in customers' needs (Godsell, 1992: 26).

Technical knowledge is thus required for self-employment, but more than that is needed in order to grow a firm.

Perseverance

Successful businesspeople possess certain characteristics and share common attitudes, including commitment, perseverance, a tolerance for risk, and a high level of integrity and reliability (Timmons, 1994: 24). Say (1971: 330) argues that success in entrepreneurship requires qualities such as "judgment, perseverance and a knowledge of the world as well as of business". To persevere is to "continue in a course of action in spite of difficulty or with little or no indication of success"

(Concise Oxford English Dictionary, 2004: 1069). Entrepreneurs are typically persistent and determined to succeed, and they continually seek solutions to the obstacles that inevitably arise (Tracy, 2005). To be successful, entrepreneurs must maintain the strength of mind needed to persevere through the difficult times (Pierce, 2003). Lottery and sweepstakes winners become instant millionaires; entrepreneurs do not. For the vast majority of entrepreneurs it takes 10 to 20 years or more to become successful (Timmons, 1994: 653). Howard Schultz, CEO of Starbucks (the ubiquitous retail chain that sells coffee beverages, beans and accessories), believes that in order to be successful in business, "You have to have a great tolerance for pain! You have to work so hard and have so much enthusiasm for one thing that most other things in your life have to be sacrificed" (Smith, 1998). According to Shuman (1999), starting and managing a successful firm require a huge emotional commitment, and perseverance is important for successful self-employment. Surviving the inevitable disappointments and near disasters one encounters on the rough road to entrepreneurial success takes a passion for the chosen business. If there is no excitement about the business, it should not be pursued (Edwards and Edwards, 1999). A start-up expert, Bob Reiss, is also of the opinion that passion for the chosen business is a key attribute to have (Tiffany, 2000). Entrepreneurs must have considerable confidence in their talent and ideas to persevere, but must also recognise mistakes, and change strategies as events unfold. Although perseverance and tenacity are valuable entrepreneurial traits, they must be complemented with flexibility and a willingness to learn. Successful ventures do not always proceed in the direction in which they initially set out. A significant proportion of successful ventures develop entirely new markets, products, and sources of competitive advantage (Bhide, 1994). Peter Drucker (1985: 189), the famous management guru, observed, "When a new venture does succeed, more often than not it is in a market other than the one it was originally intended to serve, with products or services not quite those with which it had set out, bought in large part by customers...". Success is never final and, at any moment, a product or service may no longer satisfy customers, and one must be both alert to that and ready to change (Shuman, 1999: 18).

Schumpeter (cited in Timmons, 1994: 11) describes a certain level of failure as part of creative self-destruction. Failure is part of innovation and economic renewal. Failure is part of the learning process inherent in gaining an entrepreneurial apprenticeship. For the entrepreneur,

failures and successes are merely parts of a learning cycle (Shuman, 1999: xviii). The main difference between well-known successful business people like Anton Rupert and others who did not persevere is that "the successful ones have picked themselves up one more time than they have fallen" (Mathews, 1993: 103).

At first one needs to have knowledge about a product or service (technical skills) to start a firm, but perseverance is required to develop and grow a firm. One further needs to keep an open mind, as the world gives lots of feedback, and the challenge is to take advantage of the feedback in order to develop new markets, products, and sources of competitive advantage (Bhide, 1994). To gain from feedback implies having communication skills.

Communication skills

There are a variety of definitions of the term "communication". According to Erasmus-Kritzinger, Bowler, and Goliath (2001: 3) "Communication can be defined as a two-way process whereby information (message) is sent from one person (sender) through a channel to another (receiver) who in turn reacts by providing feedback". Communication is, therefore, a dynamic process involving a continuous two-way flow of information.

According to Shuman (1999), the key to entrepreneurial and business success is the ability to satisfy the needs and wants of your customers better than anyone else does. If you are lucky enough to ever achieve success, it is seldom final. The business process continues, because the customers' needs constantly change. According to this definition, then, communication with the customer, which implies feedback, is crucial to satisfying the needs of the market.

Business is an ongoing development process (Shuman, 1999: 22). Entrepreneurs start a firm, build it and run it. From this business process viewpoint, the individual who creates the firm (the entrepreneur) takes on other roles (innovator, small-firm owner, vice-president, and so on) at each stage of the firm's life cycle. Entrepreneurship is not a fixed state of existence, but an entrepreneur is an individual who creates a firm (Gartner, 1988: 26). Although different roles are required at various stages of development in a firm of anyone that is self-employed, at each stage communication is crucial.

Prior to the start-up phase, networking and communication

with various potential customers, suppliers, providers of services and resources are required, as these networks link entrepreneurs to resources and provide information-exchange opportunities. Once the firm has been initiated and begins to grow, more interaction with employees is required to keep the business process on track. If established firms seek to become more entrepreneurial, traditional hierarchy and formalised processes should be replaced by flatter hierarchies and tolerance for ambiguity (Honig, 1998: 418). Room must thus be made for "intrapreneurship" in a firm that wishes to maintain performance and growth. Intrapreneurship entails that management stimulates the generation of new ideas by giving innovative employees freedom to take part in creative changes (Jennings, 1994: 280-284). Modern firms often encounter pressure for change because of environmental factors. For the achievement of results in rapid-growth firms, close collaboration of a manager with other people is required for resolving differences, managing others, and growing managerial talent (Timmons, 1994: 211-212). Thus, a diversity of viewpoints needs to be maintained if change and growth are planned.

Along with the knowledge society came technological development and globalisation. Computer and telecommunications technologies made many new structures and communication systems possible. In order to deal with change and turbulent environments, firms must incorporate communication mechanisms to ensure proper co-ordination. "Relational communication" refers to the alignment of the firm's structure with motivational strategies and leadership so that it nurtures an informal communication system that promotes the firm (Conrad and Poole, 2002). In traditional firms, information flows through various levels of managers (Guffey, 2000), while in a relational strategy there is more flexibility, responsiveness and openness to innovation and change. In a cultural strategy, on the other hand, leaders recognise the importance of relational concepts such as decentralisation and participation, but also stress connectedness (such as values and symbols that hold a firm together) to a great extent (Conrad and Poole, 2002). Traditional, relational, and cultural strategies can, however, only go a certain distance in adapting to change in the environment. A network strategy, on the other hand, is appropriate for firms that have to cope with high levels of uncertainty. The network is held together through trust, commitment and open communication systems. The network is co-ordinated through communication and negotiation rather than through authority. Many firms, however, are a pastiche of more than one of these strategies (Conrad and Poole, 2002).

Communication in a firm is essential, but communication is also very important among firms. In developing countries particularly, networking and communication are crucial for forming linkages among small, medium and large firms and developing an integrated economic system in this way. When linked with other firms in the domestic economy, large firms can provide a market for the intermediate production of goods from smaller industrial firms (Spring and McDade, 1998: 15).

As communication is essential in the management process (Aula, 1998: 10), both training in communication skills and the necessary experience in communication within a firm are crucial elements for successful management when people become self-employed. Technical skills and perseverance are required for self-employment, but in growth-oriented firms, it is also the responsibility of management to help people engage in dialogue (McDaniel, 1997: 21-31), which highlights the importance of managerial skills.

Managerial skills

Management is the rational process that deals with the use of scarce resources and tasks such as planning, organising, leading, co-ordinating and controlling for attaining certain objectives (Marx, Van Rooyen, Bosch and Reynders, 1998: 349). Although management and leadership are related, the two concepts are not identical. Often, leaders with entrepreneurial abilities can start a successful firm, but when the firm grows, they fail as managers. Usually, a manager is highly skilled in management through predetermined structures, but possesses relatively limited creativity (Marx *et al.*, 1998: 708). If a firm needs to grow after the start-up phase, the pursuit of certainty through management structures and systems, with the consequent reduction of ideas that challenge the status quo, may hamper growth (Honig, 1998: 416). The typical entrepreneur, however, possesses relatively high creativity, as well as managerial skills.

Newtonian science saw firms as being operated according to a deterministic, predictable mode, while modern approaches to management have brought less control and more organic, holistic and ecological organisation. It is the responsibility of management to help people engage in dialogue (McDaniel, 1997: 21-31). For venturing and further growth, enhanced information and organisational communication systems are crucial. Differences of opinion should be encouraged. Entrepreneurship arises from the management of resources under the uncertainty produced by the presence of many and diverse ideas. Management of entrepreneurial ventures should seek to

preserve this dynamism as their firms grow and develop, by seeking to promote greater uncertainty, but in manageable ways (Honig, 1998: 417-418).

Unfortunately, founder firm executives and managers often lack sufficient managerial skills to help their firms make critical life-cycle stage transitions, and instead rely on their own narrow technical views. A firm's performance suffers as a result, and in many cases new leaders are needed to help effect successful stage transitions (Meyer and Dean, cited in Honig, 1998: 415). According to a renowned entrepreneur, Bill Rancic, his management style changed with each task he had (Trump, 2004). Although the management skills of the entrepreneur and manager overlap, the manager is more driven by conservation of resources, and the entrepreneur is more opportunity-driven (Timmons, 1994: 25).

Knowledge of a product or service is essential in order to start a firm, as are perseverance and communication skills to obtain feedback from customers, in order to adapt to changes in the market place. Managerial skills are required to maintain the balance of operations. For further growth in a firm, however, leaders need to create new approaches and explore new ideas (Zaleznik, 1977: 67).

Leadership skills

Leadership is a universal human phenomenon and leadership studies are an ancient art. Yet, although leadership is one of the most observed, it is also one of the least understood phenomena, as the patterns of behaviour regarded as acceptable in leaders differ from one culture to another and from time to time (Burns, 1978). In this study the following definition of leadership applies: "Leadership or the task of leading is the ability a person has to influence another person's behaviour so that he or she will voluntarily contribute to the attainment of preselected objectives" (Marx *et al.*, 1998: 348).

True leaders view employees as assets that require investment and not control. A leader consults employees in realising a shared vision for the firm. Leaders with a vision should motivate others in the firm to assume ownership of the vision as well. Through communication, leaders must work at promoting identification with the vision. Leaders continually need to reiterate, reinforce, and redefine the vision and goals to enlist support and commitment from followers. In order to get support from followers, leaders need to build good interpersonal relationships (Puth, 1994: 150, 156).

Charismatic leaders have the ability to create a vision of where the firm is going, create strategies for achieving goals, and persuade others to accept that vision (Conrad and Poole, 2002: 100). Charismatic quality is required of entrepreneurs. Visionary leadership displays personal integrity and a willingness to take reasonable risks and give of oneself for the good of the firm. Visionary leadership demonstrates personal warmth and charm, and shows concern for employees and their lives outside the firm (Gardner and Cleavenger, 1998: 3-41). Barrie Athol, vice president of Development Dimensions International in the USA, is of the opinion that the main reason for leaving one firm to go and work for another is an unpopular boss (Lynn, 2000). A Walker International survey (Sunday Times Business Times, 2002a: 1), for instance, found that the six factors that influenced employee commitment to the workplace most, are: satisfaction with day-to-day activities; care and concern by employers for employees; work and job resources; reputation of the firm; fairness at work; and trust by employers in employees.

Research carried out on facilitators of organisational innovation indicates that strong leadership is important in a start-up, but also for further business growth in a firm (Dollinger, 1995: 53; and Honig, 1998: 416).

Entrepreneurial leadership creates the environment for innovative solutions. If the leader's view makes sense and seems honest and credible, employees will automatically approach new situations through the leader's frame of reference (Conrad and Poole, 2002: 123).

On becoming self-employed one needs technical skills, perseverance, communication with customers, the management of processes and leadership to persuade others to follow a vision. However, leadership is not only required to start a firm, but also for further business growth that requires innovative solutions to challenges.

Innovative skills

Innovation brings change (Jennings, 1994: 185) and creativity brings into existence something that has never existed before or disturbs the status quo (Jennings, 1994: 287). Joseph Schumpeter (cited in Jennings, 1994) describes entrepreneurship as the process of creating new combinations of factors to produce economic growth. Schumpeter also remarks that innovation by entrepreneurs may take the form of reconfigurations, and need not be the product of brand-new ideas. The creation of a market may not represent a new idea; it may simply be a different approach for the particular industry that provides a

competitive edge (Spring and McDade, 1998). A common channel through which technological innovation makes its way into firms is through relations with other firms. Innovative firms innovate by the form of the acquisition of tools and equipment or the purchasing of raw materials from other firms (Bellandi, 1989: 80).

Only a limited number of firms grow into larger firms. Some do not have the desire or ability to pursue growth opportunities or manage growth. Growth brings about change, and firms that have an entrepreneurial spirit should have the willingness to change and grow (Sexton and Bowman-Upton, 1991: 184). Sexton and Bowman-Upton (1991) point out that many of the characteristics normally attributed to entrepreneurs were also found in all successful managers, but that entrepreneurs possess more intense levels of growth-oriented traits than do managers in general. The intentions of a typical small-firm owner and an entrepreneur differ significantly when they start a firm. An entrepreneur plans to grow and increase the size of the labour force/staff complement, while most self-employers intend to earn their initiator a mere living (Sexton and Bowman-Upton, 1991). Organisational growth is not automatic. Growth must be planned for, and it is a decision made by some self-employed people to pursue, and by others to avoid (Sexton and Bowman-Upton, 1991). Firms directed by entrepreneurs are committed to growth as a fundamental strategic aim (McGowan *et al.*, 2001).

It has been found that life-cycle stages of a firm have important effects on innovation in a firm. Factors that facilitate innovation at the inception of a firm may actually hinder it in later stages (Sexton and Bowman-Upton, 1991: 250). Centralised leadership may contribute to innovativeness in a firm's early stages, but an adjustment in management style may be needed as a firm matures (Frese, Van Gelderen, and Ombach, 1999: 2-30).

To start a firm, technical knowledge of the product or service is required, and perseverance is needed to overcome difficulties. Feedback from the environment and communication of customers' needs helps to keep a competitive advantage. Managerial skills help to facilitate communication, but are also required to maintain the balance of operations. Leadership is required to start a firm, but also to make successful stage transitions. Innovative leaders are required to utilise new opportunities. New ideas are born by keeping ahead of customers' needs, a situation that relies on pro-activity.

Pro-activity

Pro-activity in a business sense is the "willingness to be first in the introduction of products or services rather than respond to the actions of competitors" (Sexton and Bowman-Upton, 1991: 183). The bureaucratic firm takes no risks, nor is it interested in pro-activity or innovation. Growing firms face frequent changes, and attempt to change in a manner that is creative and innovative. Whether an entrepreneur can seize an opportunity in time depends on movements in technology and competitors' thrusts, among other factors. An opportunity is a constantly moving target for which there exists a "window of opportunity" (Timmons, 1994: 21). As policies and procedures to support the infrastructure of a firm become more structured, it loses its ability to respond rapidly to changes in the market. In many cases the rapid response rate was the competitive edge on which a firm was created and developed in the first place. To keep up an entrepreneurial spirit in a firm that grows, an entrepreneur often needs to deviate from established practices and try something new. Thus, pro-activity is required for growth. Howard Schultz, CEO of Starbucks, once said that if Starbucks had concentrated on what others were doing and had been reactive, its stores would have been designed against the competition instead of for the customers (Smith, 1998). Bob Reiss, another start-up expert, is also of the opinion that an entrepreneur has to keep one step ahead of customers' needs (Tiffany, 2000).

Technical skills, perseverance, communication skills, managerial skills, and leadership are required for self-employment. For further growth in a firm, pro-active, innovative leaders are required to seize opportunities. Information and knowledge about opportunities need to be obtained in order for leaders to be pro-active.

Information-seeking skills

Information is every idea, theory, conjecture, experience, or philosophy that can be discerned with the senses and intellect, and can be found in books, magazines, TV, computers, movies, and people (Shane, 1994). The value of information can be taken advantage of when it is collected, processed, and linked to provide answers to problems or needs. Collection, processing and connecting information are part of a firm's business life. Successful business people use different methods to collect, process and connect information, but they always do it. Information is required at every step in the business

process: for finding a market opportunity, for the development of a business concept to satisfy customers' needs, and for introducing change when change is required. An entrepreneur must be up-to-date on the latest market trends and implement these to enable the firm to consistently offer the best products and services. Knowledge often separates a firm from its competitors (Pierce, 2003).

Until the early 1980s, one of the biggest advantages the CEOs of large firms had over CEOs of smaller firms was their ability to use people and technology to help process information. Over the past 20 years, significant advances have been made to both microcomputer hardware and software, and these advances have helped smaller firms compete more effectively with bigger firms. The Internet makes it easier for people to work with one another and share information and knowledge without concern for location or time (Shuman, 1999). The dominant reason for the use of the Internet is information gathering and provision (McGowan *et al.*, 2001).

Apart from technical skills, self-employers also need perseverance, communication skills, managerial skills, and leadership skills to become successful. For firms to grow, innovative leaders require information in order to be pro-active. Planning for growth includes financial planning to achieve longer-term goals.

Financial skills

Financial management skills entail the determination of the capital requirements of a firm and ensuring that capital is obtained and effectively employed. The financial function therefore refers to the flow of capital to and from the firm (Marx *et al.*, 1998: 583).

Financial planning is crucial for own-business planning, supports strategic planning, and is required for securing loans, growth planning, asset management, profit planning, and cash-flow planning. Accurate financial statements and management reflect well on a firm. According to Hiam and Olander (1996: 260), owning a firm requires some basic understanding of accounting and bookkeeping functions. Financial health is an indicator of past performance and an enabling resource for future performance. A strong financial base provides greater freedom in strategic choices and assists with the formulation of an optimal business plan for the longer term. A firm operating under financial constraints is more interested in short-term survival than business growth in the long term (Human and Horwitz, 1992: 79).

To summarise, knowledge of a product or service is required for self-employment, but additional skills are especially needed for entrepreneurship and further growth in a firm's business. Various authors, *inter alia*, Tracy (2005), Pierce (2003), and Timmons (1994), are of the opinion that perseverance is important for successful self-employment. In addition to technical skills and perseverance, communication with the customer is required to satisfy the needs in the market place. Communication not only with customers, but also with employees within a firm is important, but also to form linkages between firms and to stimulate innovation. Management has the responsibility to encourage communication. However, although a manager is usually highly skilled in management through predetermined structures, he or she often has limited creativity that is required for growth in a firm's business. Leadership is required to create new approaches for growing a firm. Entrepreneurs are thus leaders that create a vision and strategies for achieving goals, by persuading others to accept that vision through engaging in open communication, and at the same time managing the ongoing operational processes. Economic growth is a result of change by creating new combinations of factors. Business growth is not automatic, and a firm needs to be pro-active in introducing new products or services. In order to be pro-active, the firm needs knowledge about opportunities in the market, customers' needs and market trends which are detected through information collection, processing and analysis. Planning for growth further includes financial planning, as financial health helps is a prerequisite for achieving longer-term goals.

PURPOSE OF THE STUDY

Entrepreneurship entails value creation for owners, stakeholders, customers, employees and the economy as a whole. True entrepreneurship means contributing to society, as emphasised by Winston Churchill: "We make a living from what we get, we make a life from what we give" (Sunday Times Business Times, 2002b: 23). The ability to generate sufficient income and create value separates firms that fail from those that succeed (Timmons, 1994: 9-10). Some researchers believe that growth-oriented firms (those that plan to increase the staff complement of their firms) are truly entrepreneurial and that they differ from firms in general (Sexton and Bowman-Upton, 1991: 16). The literature contends that many of the characteristics normally associated with entrepreneurs (e.g. internal locus of control, risk taking, creativity, self-confidence, a need for independence, commitment, and high energy levels)

were also found in all successful managers (Sexton and Bowman-Upton, 1991: 16).

Skills in making and doing things are fundamental to economic development and employment creation. The acquisition of appropriate skills enables entrepreneurs to found new firms and create employment (Fazey, 1997: 161). Against this background, the purpose of this study was to assess whether successful self-employed graduates had acquired the necessary skills for self-employment, and to what extent they had acquired these skills. The study also attempted to discern whether those self-employed graduates who had the intention to grow their firms had acquired these skills to a greater extent than those who did not plan to grow their firms.

PROBLEM STATEMENT

Most entrepreneurial employers (those who work for themselves and employ other people) are better qualified than the self-employed in a one-person business (Statistics South Africa, 1998). This study will thus focus on the higher-skilled self-employed component of the self-employed in order to identify the skills required to become self-employed and contribute to economic growth and job creation. The problem addressed in this study is the investigation of the skills that are acquired by self-employed graduates, the extent to which the skills have been acquired, and the role of these skills when growth and entrepreneurship are envisaged.

RESEARCH OBJECTIVES

Against the background of the contention that entrepreneurs create jobs for other people, and certain skills can differentiate basic survival self-employment from true entrepreneurship, the objectives of this study were to identify the skills acquired by self-employed graduates who perceived themselves as successful, and discern to what extent they had these skills when job creation and growth of business in their firms were envisaged.

THE METHODOLOGY

Population

The self-employed include both those who work for themselves without employing anyone else (one-person

firms) and those who work for themselves and employ other people (employers). According to Statistics South Africa (1998), 9% of the work force in South Africa (approximately 100 000) was self-employed (one-person firms plus employers) at the time of the Population Census in 1996. One-person firms made up 5% and employers 4% of the work force. These figures represent a growth rate of 15% per annum in self-employment since 1991.

The majority of employers were highly qualified: 45% had obtained a Grade 12 or higher qualification, while the majority of self-employed people in one-person firms were in the lower education brackets. Less than a third (32%) of those in one-person firms had acquired a Grade 12 or higher qualification. Those people who created jobs for themselves as well as others (employers) made up 45% of the self-employed and they formed the majority in the higher education brackets.

Sampling

A postal survey was done to investigate the extent to which self-employed graduates had acquired various skills necessary for self-employment and further job creation. The responses to this survey formed the basis for a descriptive study. The postal survey was augmented by a qualitative study that comprised in-depth interviews with a selection of respondents ($n = 30$). Those that were interviewed were selected according to a stratified random sampling procedure, as the target population is not homogeneous. The sampling frame for the interviews stratified respondents into 12 groups that represented 12 fields of study (natural science; information science; engineering, building and related; agricultural and related; veterinary science; medical and dental; supplementary medical services; human resources and social sciences; publishing, advertising and creative arts; business management and administration; legal; and chartered accounting). Four respondents were randomly selected out of each of the medical and dental, engineering, building and related, and business fields, as they were the largest groups. Out of each of the other nine fields of study, two respondents were selected, as these groups were smaller.

A Register of Graduates of the Human Sciences Research Council (HSRC) was used as a sampling frame for the postal survey. The HSRC's Register of Graduates is a comprehensive database that contains information on university graduates. The Register has certain limitations, however, and these include the fact that not all technikon graduates appear on the database, and that Africans are under-represented on the register (because of the

sometimes poor response from previously-disadvantaged universities to requests for updates to the Register). Another limitation is that the Register does not include all those graduates who obtained their qualifications abroad.

Using a sampling frame (self-employed graduates on the Register of Graduates) that covered the target population, a simple random sample of approximately 14 000 graduates was drawn. The response rate was 30 % (4 225 usable questionnaires). The realised sample was compared with the sampling frame according to occupational field.

Weights were calculated to correct discrepancies between the realised sample and the target population in terms of occupational field. For example, in the engineering field, there were 4 796 self-employed university graduates in the population, but 350 self-employed university graduates in the sample. For the sample, a weight in the engineering field was calculated that was representative of the frequency of the engineering field in the population ($n = 4 796$). The weight of 13.70 in the engineering field was obtained by dividing 4 796 (frequency in the population) by 350 (frequency in the sample). The weight for each occupational field was calculated in a similar fashion.

Instruments used

The literature reveals that respondents perceived certain skills as being important for success in self-employment. Leadership, technical skills, perseverance, innovation skills, communication skills, managerial skills, financial skills, pro-activity, and information-seeking skills were all identified as contributing to successful self-employment. These were listed, and respondents indicated according to a 4-point ordinal scale the degree to which they had acquired the skills in question when becoming self-employed. The mean was calculated as an indication of the extent to which the skills were acquired.

According to Mirjam Van Praag (1996), the longer a person survives in self-employment, the more successful he/she is, and the more personnel a self-employed person has under his/her control, the more successful he/she can be considered. One of the questions put to self-employed graduates by means of a questionnaire was whether they perceived themselves as successful or not (a yes/no answer was required).

Another question that was put to the respondents by means of the questionnaire was whether or not they intended to grow the staff complement of their firms. The respondents

had to indicate by which number they intended to grow or decrease the staff complement of their firms. Self-employed graduates who indicated that they intended to grow the staff complement of their firms (those with a growth orientation) were compared (in terms of the extent to which that they had acquired the particular skills) with those who did not have an intention to grow their firms in the future.

The t-test was used to determine whether the two independent groups (the group that indicated they had plans to grow their firms and the group that had no plans to grow their firms) differed significantly in terms of their mean value on the quantitative variables (skills).

The SPSS statistical programme was used for the data analysis. The items listed on the questionnaire were based on the literature. Twelve items (managerial skills, technical skills, networking skills, communication skills, pro-active skills, financial skills, computer skills, perseverance, leadership skills, information-finding skills, innovative skills, and Internet skills) were listed and respondents had to indicate, according to a 4-point ordinal scale, the degree (not at all, to a small extent, to some extent, and to a great extent) to which they had acquired these skills. Performing a measure of internal consistency on the skills-related questions did not make sense, as the items were not expected to correlate with a total score or with one another. It is more plausible that individuals will have high scores on some items and low scores on others.

Section 2 of the questionnaire had 40 items listed and respondents had to indicate according to a 4-point ordinal scale the degree (not at all, to a small extent, to some extent, and to a great extent) to which these items had contributed to success in self-employment. The 40 items were grouped into 12 subscales (leadership skills, networking skills to network with the external environment, perseverance, pro-active skills, electronic networking skills, technical skills, information-finding skills, financial skills, managerial skills, communication skills to communicate in the internal environment, innovative skills, and general skills).

RESULTS

Reliability within Section 2 was investigated by means of Cronbach's Alpha as a measure of internal consistency. The thresholds were as follows: Leadership (6 items: $\alpha = 0.79$), networking skills in the external environment (6 items: $\alpha = 0.71$), perseverance (4 items: $\alpha = 0.70$),

pro-activity (3 items: alpha = 0.67), electronic networking skills (3 items: alpha = 0.60), technical skills (3 items: alpha = 0.65), information-finding skills (4 items: alpha = 0.64), financial skills (4 items: alpha = 0.50), managerial skills (3 items: alpha = 0.57), communication skills to communicate in the internal environment (2 items: alpha = 0.55), and innovative skills (2 items: alpha = 0.45). The general skills group did not have items that loaded high on this factor. Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient, but lower thresholds are sometimes used in the literature (Reynaldo and Santos, 1999).

In order to investigate construct validity, an exploratory factor analysis was performed on the 52 items. A principal components analysis was performed in order to determine the number of factors to be extracted. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity showed that sampling was deemed adequate. The KMO measure of sampling adequacy for Section 1 was 0.824, and 0.796 for Section 2. The Kaiser criterion of Eigenvalues larger than one was used to identify the number of factors to be extracted. A principal axis factor analysis was done with a varimax rotation, as this type of factor analysis is a commonly used extraction method, especially with non-normally distributed variables (items on a 4-point ordinal scale are inclined not to show a normal distribution, as in this case).

Principal axis factor analysis is especially suitable where latent constructs (factors) are thought to cause variable responses (StatSoft, Inc., 2003). For Section 1 (12 listed items), three factors were identified (refer to Table 1). A group of skills (managerial skills, financial skills, pro-activity skills, communication skills, and networking skills) had high loadings on factor one (skills associated with management). Another group of skills (innovative skills, leadership, perseverance and information-finding skills) had high loadings on factor two (leadership/creative skills), while a third group of skills (computer skills and Internet skills) had high loadings on factor three (technical skills). The three factors were labelled managerial skills, entrepreneurial skills, and technical skills. These three factors explained 54.7% of the total variance.

For the 40 success-related items (Table 2), 12 factors were identified (leadership skills, external networking skills, perseverance, pro-active skills, electronic networking skills, technical skills, information-finding skills, financial skills, managerial skills, internal communication skills, innovative skills, and general skills). The 12 factors explained 59.5% of the total variance. These factors compare well with the items in the theoretical scales. The factor structure is indicative of construct validity of the instrument that measures definite distinctive groups of skills.

TABLE 1
FACTOR MATRIX FOR SKILLS-RELATED ITEMS

Items	Factor		
	Managerial skills	Entrepreneurial skills	Technical skills
Managerial skills	0.728	0.195	0.188
Financial skills	0.544	0.046	0.140
Pro-active skills	0.519	0.498	0.167
Communication skills	0.490	0.449	0.120
Networking skills	0.455	0.320	0.292
Innovative skills	0.096	0.644	0.188
Leadership skills	0.405	0.520	-0.019
Perseverance	0.116	0.494	-0.042
Information-finding skills	0.104	0.489	0.282
IT skills	0.222	0.012	0.733
Internet skills	0.109	0.132	0.665

TABLE 2
FACTOR MATRIX FOR SUCCESS-RELATED ITEMS ⁽¹⁾

Items	Factor											
	1	2	3	4	5	6	7	8	9	10	11	12
Financial experience	0.765	0.018	0.067	0.051	0.135	0.135	-0.023	0.019	0.013	0.065	-0.141	0.048
Managerial experience	0.721	0.021	0.124	0.080	0.166	0.052	0.061	0.040	0.124	0.009	-0.050	-0.034
Business planning	0.572	0.067	0.207	0.006	0.023	0.034	0.081	0.149	0.251	-0.072	0.131	0.075
Market research	0.477	0.078	0.101	0.129	0.098	0.012	0.265	0.127	0.005	0.007	0.243	0.009
Financial discipline	0.441	0.047	0.262	0.137	-0.032	0.055	0.039	0.110	-0.020	0.194	0.042	-0.071
Vision	0.425	0.027	0.287	0.134	-0.098	0.011	0.043	0.101	0.272	-0.077	0.143	0.114
Government general networks	0.065	0.631	-0.083	-0.027	0.071	0.018	-0.016	0.120	0.056	0.024	0.072	0.461
Financial networks	0.009	0.596	-0.008	0.009	0.048	-0.022	-0.036	0.037	0.026	-0.047	0.013	-0.112
Government financial networks	0.095	0.558	0.001	-0.017	-0.062	-0.003	0.087	0.121	-0.087	-0.098	0.034	-0.105
Corporation networks	0.084	0.533	-0.105	0.017	0.035	0.061	0.017	0.183	-0.029	-0.014	0.037	0.509
Development networks	0.022	0.522	0.024	-0.034	0.074	-0.060	0.105	-0.005	0.032	0.047	-0.003	0.016
Local networks	-0.005	0.466	0.027	0.036	-0.001	0.018	0.100	0.069	0.003	-0.036	-0.020	0.108
Hard working	0.111	-0.011	0.651	-0.012	0.045	0.095	-0.007	0.046	0.035	0.044	0.051	-0.072
Perseverance	0.240	0.020	0.645	0.031	-0.082	0.010	0.034	0.034	0.054	0.054	0.122	0.071
Sense of responsibility	0.130	-0.005	0.601	0.096	0.041	0.047	0.034	0.019	0.166	0.072	0.011	-0.038
Ethical behaviour	0.050	-0.111	0.318	0.118	0.063	0.042	-0.015	-0.057	0.104	0.313	0.190	-0.039
Knowledge of product/service	0.119	0.024	0.091	0.845	0.076	0.053	0.048	0.031	0.064	0.117	0.084	0.014
Experience related to product/service	0.125	-0.068	0.042	0.667	0.165	0.107	-0.007	-0.027	0.110	0.080	0.109	0.017
Knowledge of external environment	0.334	0.117	0.150	0.390	0.104	0.022	0.090	-0.032	0.162	0.038	0.209	-0.269
IT/computer skills	0.035	0.038	-0.069	0.114	0.610	0.076	0.084	-0.030	0.007	0.122	-0.056	0.016
Networking (electronically)	0.110	0.050	0.072	0.029	0.597	0.053	0.203	0.030	0.028	0.020	0.084	0.065
Networking / contacts	0.112	0.047	-0.009	0.100	0.450	0.039	0.021	0.085	0.217	-0.012	0.143	-0.093
Tertiary education	0.083	-0.038	0.048	0.065	0.064	0.922	-0.002	0.029	0.040	0.048	-0.035	0.043
Training up to Grade 12	0.062	0.029	0.097	0.045	-0.011	0.555	0.029	0.119	0.080	-0.004	0.001	-0.098
Postgraduate training	0.050	-0.066	0.029	0.056	0.184	0.438	-0.050	-0.027	0.060	0.038	0.168	0.120
Information via mass media	0.144	0.224	-0.029	0.012	0.031	-0.006	0.616	0.109	0.059	0.013	0.015	-0.058
Advertising / marketing	0.122	0.090	0.011	-0.009	-0.002	-0.006	0.533	0.118	0.067	0.117	0.194	-0.031
Electronic information	-0.036	-0.015	0.020	0.084	0.383	-0.028	0.521	0.010	-0.052	-0.032	-0.099	0.057
Electronic marketing / advertising	0.007	0.028	0.073	0.006	0.337	0.023	0.467	0.017	0.005	-0.036	0.016	0.052
Family finance	0.040	0.077	-0.023	-0.022	0.066	0.004	0.015	0.637	-0.085	-0.086	0.009	0.134
Informal support	0.051	0.053	0.076	0.009	0.039	0.043	0.071	0.573	0.005	0.051	0.205	-0.052
Finance from formal banking sector	0.117	0.147	0.082	-0.006	-0.098	0.118	0.090	0.359	0.026	0.024	-0.068	0.042
Appropriate personal characteristics	0.170	-0.010	0.250	0.079	0.017	0.059	0.063	-0.004	0.712	0.056	0.099	0.012
Self-employment abilities	0.111	-0.038	0.060	0.226	0.199	0.146	0.022	-0.109	0.386	0.096	0.051	0.024
Business know-how	0.170	0.057	0.061	0.045	0.299	0.141	0.017	0.030	0.365	0.151	0.027	-0.095
Good customer service	-0.017	-0.146	0.129	0.125	0.176	0.012	0.062	-0.078	0.085	0.663	0.167	0.051
Employees are important	0.280	0.068	0.151	0.158	-0.084	0.109	0.062	0.249	0.132	0.347	-0.049	-0.090
Product/service is unique/innovative	-0.024	0.042	0.105	0.140	0.058	0.022	0.117	0.079	0.108	0.074	0.512	0.043
Service/product addresses needs of clients	0.103	0.010	0.300	0.117	0.050	0.153	-0.015	0.012	0.030	0.252	0.428	-0.051

¹⁾Factor 1 = Leadership skills, Factor 2 = networking skills (external environment), Factor 3 = perseverance, Factor 4 = pro-active skills, Factor 5 = electronic networking skills, Factor 6 = technical skills, Factor 7 = information-finding skills, Factor 8 = financial skills, Factor 9 = managerial skills, Factor 10 = internal communication skills, Factor 11 = innovative skills, Factor 12 = general skills

95% (n = 4 043) of the self-employed graduates indicated that they were successful (according to the graduates' own perception of success - a yes/no answer was required). Of these successful self-employed graduates, 31% (n = 1 271) indicated that they planned to increase their staff complement in the future (group with a growth orientation), while 68% (n = 2 737) indicated they did not plan to increase the staff complement of their firms (non-growth group). In comparing growth-oriented self-employed graduates to those who did not intend to grow their firms, it emerged that certain skills were acquired to a greater extent by those that planned growth than those that did not plan for growth. Skills necessary for self-employment, according to previous research are, *inter alia*, perseverance, leadership, innovative skills, technical skills, communication skills, pro-activity, managerial skills, financial skills, and information-seeking skills.

As shown in Table 3, perseverance was the characteristic that self-employed graduates had to the greatest extent (mean of 3.71 for those with a growth orientation and 3.64 for those who did not plan to grow their firms), although in some of the literature, perseverance was not identified as the key element for successful self-employment (Shuman, 1999). Secondly, self-employed graduates had acquired leadership skills, and those that had a growth orientation had acquired leadership skills to a greater extent (mean of 3.36) than those that did not plan to grow their firms (mean of 3.21). This result is in line with previous research that was carried out on facilitators of organisational innovation

and identified leadership as important for growth (Dollinger, 1995: 53; Honig, 1998: 416). Growth-oriented self-employed graduates had acquired leadership skills (mean of 3.36) and innovation skills (mean of 3.24) to a greater extent than technical skills (mean of 3.21), while those that did not plan to grow their firms had acquired leadership (mean of 3.21) and innovation skills (mean of 3.10) to a lesser extent than technical skills (mean of 3.23). This finding is in line with that of previous research that indicated that in many cases new leaders are needed to help with innovation as opposed to having narrow technical views.

Those who intended to grow their firms had also acquired communication skills to a greater extent (mean of 3.17) than those that did not plan to grow their firms (mean of 3.05). Self-employed graduates with a growth orientation had also acquired pro-active skills to a greater extent (mean of 2.98) than those that indicated they had no plans to grow their firms (mean of 2.75). Those who intended to grow their firms in future had acquired information-seeking skills slightly more (mean of 2.96) than those that did not have the intention to increase the staff complement of their firms (mean of 2.92). Self-employed graduates with a growth orientation had also acquired managerial skills to a greater extent (mean of 2.93) than those that did not plan to grow their firms (mean of 2.71). Growth-oriented self-employed graduates had also acquired financial skills to a greater extent (mean of 2.73) than those that did not plan to increase the staff complement of their firms (mean of 2.59).

TABLE 3
SKILLS SELF-EMPLOYED GRADUATES POSSESSED WHEN THEY BECAME SELF-EMPLOYED

Skills	Group with a growth orientation	Group with no plans to increase the staff complement of their firms	t-test for Equality of Means			
			t	df	Sig. (1-tailed)	Mean difference
Communication skills	3.17	3.05	5.467	4010	<0.001	0.15
Pro-active skills	2.98	2.75	9.516	2527.269	<0.001	0.29
Financial skills	2.73	2.59	8.036	4031	<0.001	0.25
Perseverance	3.71	3.64	2.353	2661.646	0.01	0.05
Leadership skills	3.36	3.21	7.316	4050	<0.001	0.18
Information-finding skills	2.96	2.92	2.91	2580.609	0.002	0.09
Innovative skills	3.24	3.10	6.323	4021	<0.001	0.17
Managerial skills	2.93	2.71	9.653	2593.209	<0.001	0.3
Technical skills	3.21	3.23	-1.189	3733	0.117	-0.04

A t-test was used to assess whether there is a statistically significant difference in the extent to which the two groups (the growth group and non-growth group) had acquired the individual skills. The mean difference of the two groups differed significantly, as indicated in Table 3. Values smaller than 0.05 (sig. column in Table 3) indicate that there is a significant difference at the 5% level of confidence. Self-employed graduates that had plans to grow the business of their firms in future had acquired the listed skills to a greater extent than those that did not envisage growth in the business of their firms. Those that had planned growth in the business of their firms had acquired all skills listed, except technical skills, to a greater extent.

Multivariate analysis of variance (MANOVA) was used to test the idea that entrepreneurs (those with a growth orientation) and successful self-employed graduates in general (those who are successful, but do not intend to increase the staff complement of their firms) differ with regard to the extent that they have acquired selected skills.

Against this background the following null hypothesis was formulated:

HO : There are no differences between the growth group and the non-growth group with regard to the skills acquired on becoming self-employed (technical skills, perseverance, communication skills, managerial skills, leadership skills, innovative skills, pro-active skills, financial skills, and information-seeking skills).

The statistical alternate hypothesis was:

H^a: The growth group differs from the non-growth group with regard to the extent that selected skills were acquired on becoming self-employed (technical skills, perseverance, communication skills, managerial skills, leadership skills, innovative skills, pro-active skills, financial skills, and information-seeking skills).

As can be seen from Table 4, the p-value is smaller than 0.001, which means, when the variables are observed simultaneously, that the growth group and the non-growth group differed significantly with regard to the extent that they had acquired the selected skills on becoming self-employed. Therefore, the alternative hypothesis (H^a) is accepted.

CONCLUSION

Those who created jobs for themselves and others (employers) in South Africa were 45% of the self-employed, and they formed the majority in the higher education brackets. In comparing self-employed entrepreneurs with a growth orientation to those who did not intend to grow their firms, it is clear that certain skills are required to a greater extent when growth is planned than when it is not. Important skills to have in self-employment when growth is planned are indicated as perseverance, leadership, innovative skills, communication skills, managerial skills, financial skills, pro-activity, and information-finding skills.

MANAGERIAL IMPLICATIONS

Those with a growth orientation had acquired leadership and innovation skills to a greater extent than technical skills. This finding is in line with previous research that indicated that in many cases new leaders are needed to help with innovation and change and not to adhere to narrow technical views. An adjustment in management style may be needed as a firm matures. Life-cycle stages in the business of a firm may have effects on innovation, and therefore management styles need to be adapted in order not to hinder innovation.

Communication skills were acquired to a greater extent by those who intended to grow the business of their firms than those with no intention of doing so. The individual who creates the firm (the entrepreneur) takes on other roles

TABLE 4
MANOVA RESULTS: THE DIFFERENCE IN THE MEAN VALUE OF TWO INDEPENDENT GROUPS ON ALL QUANTITATIVE VARIABLES SIMULTANEOUSLY

	Value	F	Hypothesis df	Error df	Sig. (p-value)
MANOVA test statistic	0.972	7.299	12.000	3061.000	<0.001

(innovator, small-firm owner, vice-president, and so on) at each stage of the firm's growth, but communication is important at each stage. Prior to the start-up phase, networks with a high level of interaction should be developed. If established firms seek to become more entrepreneurial, flatter firm structures and tolerance for ambiguity should replace hierarchies and formalised processes. When firms grow rapidly, managers need to communicate more intensively with subordinates. Furthermore, firms need to think long-term and create customer loyalty. A leader should therefore not spend time only on managing the firm through internal communication, but very importantly, should also concentrate on relationship marketing and understanding customers. In a developing country especially, networking and communication are crucial, to form linkages among small, medium and large firms, to develop an integrated economic system.

Managerial skills are also more important when growth is envisaged; however, different styles of management may be required. When firms need to grow after the start-up phase, certain management structures may hamper further growth. New approaches to management bring less control and more dialogue. Enhanced communication systems focus on the information-sharing relationships between employers and employees. Differences of opinion should be encouraged, as entrepreneurship (and intrapreneurship) arise from the management of resources under uncertain circumstances and the presentation of different and dynamic viewpoints. New leaders could be required at certain stages to help with innovation and successful changes to adapt to the changing environment.

Those with a growth orientation had also acquired financial planning skills to a greater extent than those that did not plan to grow the business of their firms. Accurate financial statements and management reflect well on any firm. Self-employed graduates that had planned to grow their firms had also acquired pro-active abilities to a greater extent than those that did not have plans to grow the business of their firms.

In order to start a firm, technical knowledge of a product or service is required. A narrow technical orientation is, however, not all that is required. For success and business growth in a firm, opportunity recognition continues to be important. An entrepreneurial approach in firms is required in order to recognise opportunities. For an entrepreneurial approach, self-employers should, in addition to technical skills, also have acquired leadership skills, perseverance, managerial skills, communication

skills, pro-active skills, innovative skills, information-finding skills and financial skills. Quality education implies exposure to the working environment that gives opportunities for developing these skills. There should thus be more co-operation between training institutions, government and the business world to provide opportunities to develop these skills among would-be self-employers. Managers of firms also have the responsibility to grow future managerial talent. Mentorship, training opportunities and infrastructure should be made available by larger, mature firms to help and support smaller firms and inexperienced individuals, while partnerships should be encouraged. Very small firms can, however, also network more, to jointly take advantage of opportunities and become more competitive by sharing marketing services and skills.

Self-employment as such is not the answer to job creation, because many self-employed people lack the skills to become successful and grow the business of their firms. As communication is essential in the management process, both training in at least communication skills and the necessary experience in communication within a firm are crucial before people become self-employed. Government, training institutions and the business world should create an environment conducive to working experience, self-employment and growth of business in firms. Restrictive legislative and other regulatory red tape should be reduced, and opportunities for getting the necessary working experience need to be created. The current levy-grant system should be streamlined to encourage more buy-in from the business sector to assure quality training and opportunities for working experience. Labour market flexibility for very small firms needs to be revisited. Furthermore, workshops and seminars sponsored by the private sector, government and training institutions need to be encouraged to provide opportunities for networking.

LIMITATIONS OF THE STUDY

The HSRC Register of Graduates, although a comprehensive database at the time of the study, had certain limitations, as the database mainly contained information on university graduates and not all technikon graduates appeared on the database. Africans were also under-represented (because of the sometimes poor response from previously-disadvantaged universities to requests for updates to the Register). Another limitation is that the Register did not include all those graduates in South Africa who had obtained their qualifications abroad.

A limitation with regard to reliability in Section 2 is the fact that certain items related to skills required for success, had lower alpha thresholds than 0.7. However, Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient, though lower thresholds are sometimes used in the literature (Reynaldo and Santos, 1999).

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