Entrepreneurship Strategy

A report on NGO strategy for entrepreneurship screening and development in Masiphumelele.

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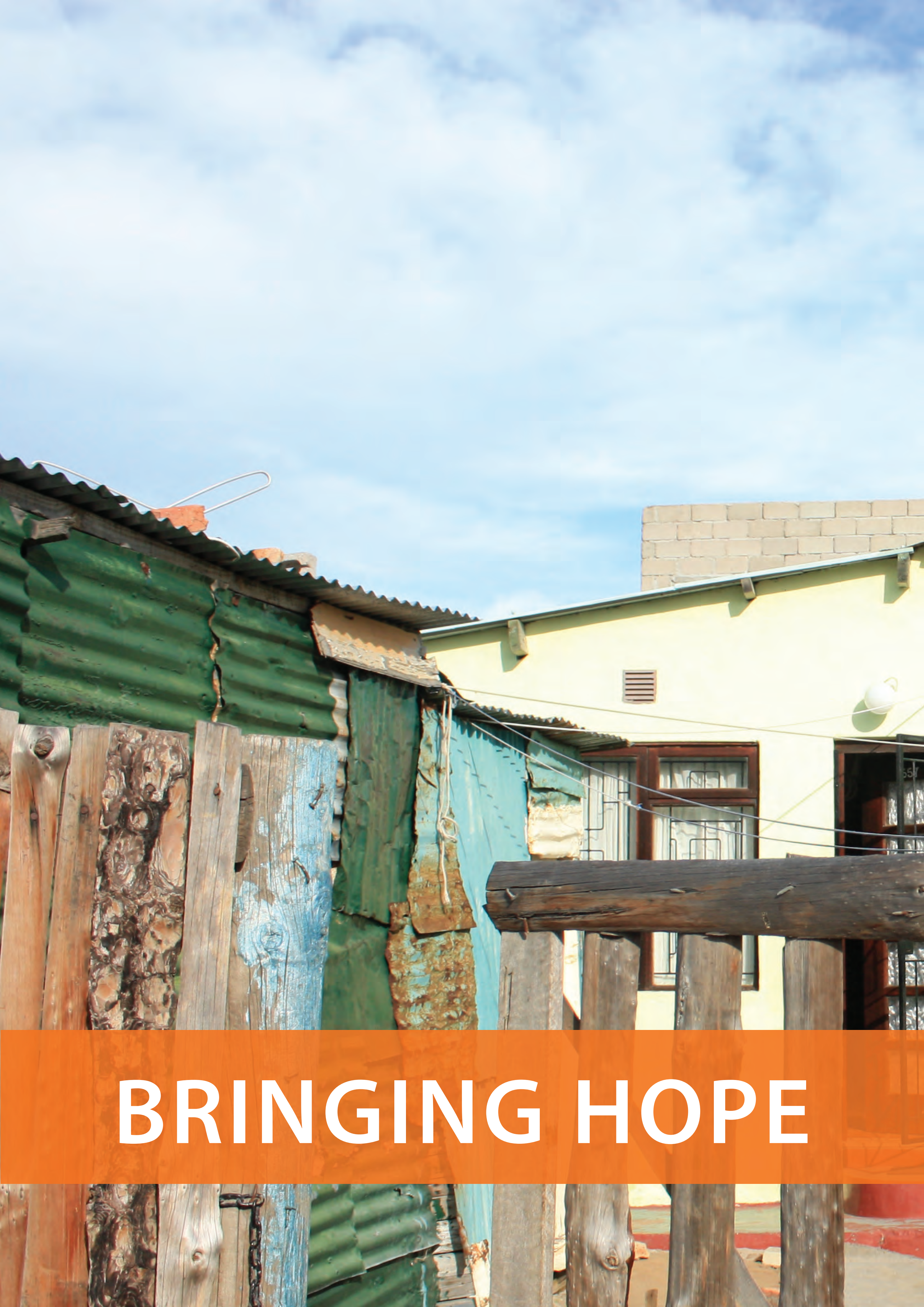
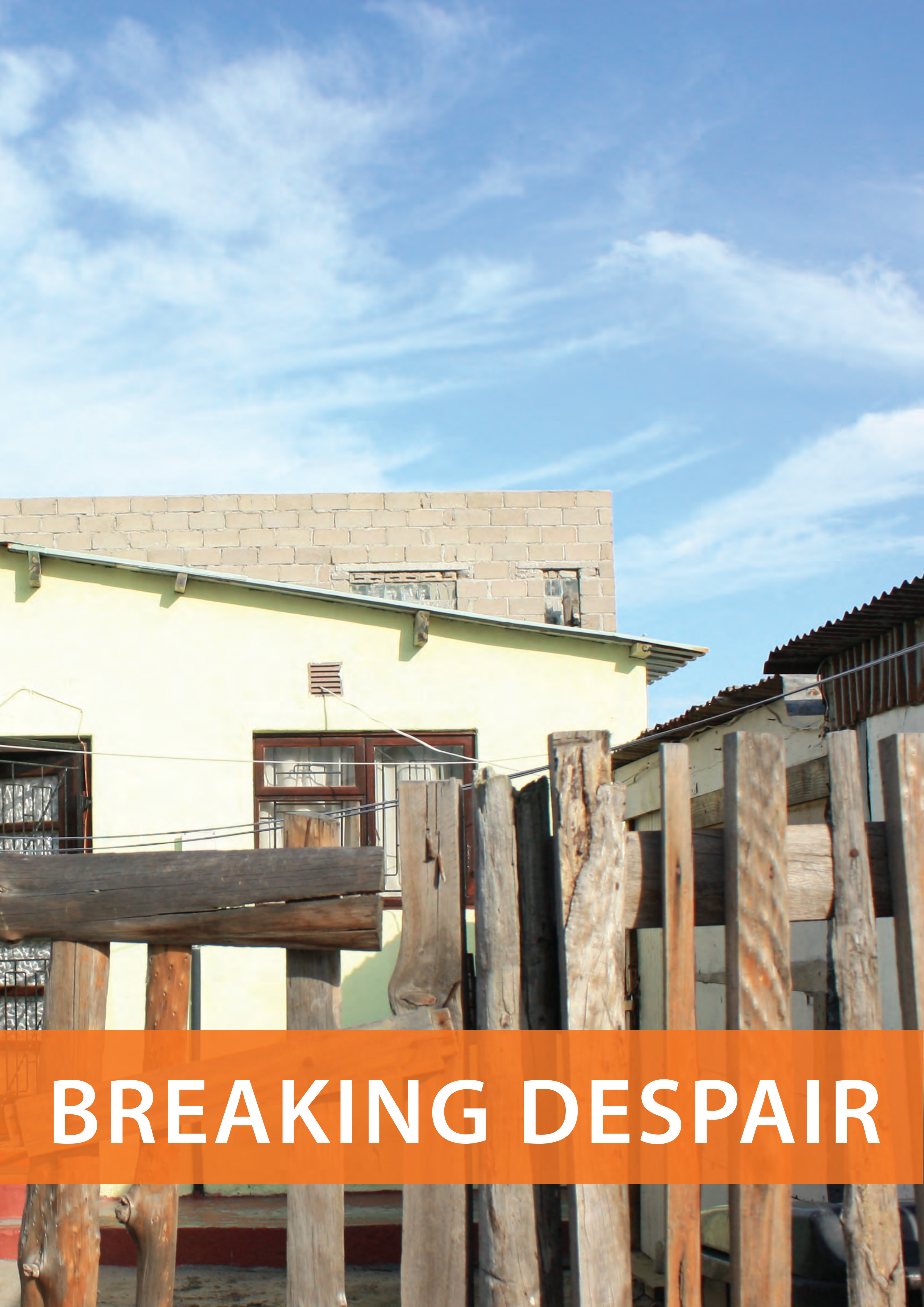


BRINGING HOPE



BREAKING DESPAIR

Entrepreneurship Strategy

A report on NGO strategy for entrepreneurship screening and development in Masiphumelele.

FRANCES MARLIN MANN CENTER FOR ETHICS AND LEADERSHIP
SAMFORD UNIVERSITY

A project of the Mann Center for Ethics and Leadership.

With support from the following organizations:

University Fellows, Samford University
Brock School of Business, Samford University
Brock Scholars, Samford University
Living Way
Alabama Power, A Southern Company
Living Hope

This report was compiled independently by its authors.
Its contents do not necessarily reflect the views or opinions of Samford University or Living Hope.

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introduction

BACKGROUND

In 2011 Samford University and Living Way created a partnership that aspired to become an annual service practicum. Several students were sent on a pilot project to explore the feasibility of this goal. Their project aimed to develop a screening process for Living Way to spot high-potential candidates for its entrepreneur training course. However, in the process of researching, questioning, and thinking critically about Living Way's current strategy, the students realized Living Way's entrepreneurial outreach might be more effective with a few other adjustments. They asked, "should the goal be to help entrepreneurial people or to help people become entrepreneurial?"

This question sparked the creation of a model describing entrepreneurial development in a person. They hypothesized the extremely low entrepreneurship rate in townships could be a result of little entrepreneurial education, exposure, and encouragement, not a lack of entrepreneurial capacity. Perhaps entrepreneurs were there, but just looked just look different than expected.

Therefore, if Living Way could find these "potential entrepreneurs" and train them, filling in the necessary educational gaps along the way, their return on investment for students in the course would be much greater and resources would be better spent.

Relevant literature and research on the entrepreneurship scene at large, in South Africa, and most importantly, in townships, was reviewed. Significant entrepreneurial traits were then selected for the screening process, and an entrepreneurship workshop was developed to provide a platform for the screening. The students then made recommendations on Living Way's entrepreneurship outreach at large, as well as recommendations for further research.

SCOPE AND GOALS OF STUDY

The scope of this project was helping Living Way discover a process to screen entrepreneurs for its training programs. In the past, candidates for the program either self-selected themselves into the course after learning about it, or candidates were screened at the discretion of Living Way staff. While Living Way typically based this screening on previous interaction between Living Way staff and candidates, it was not a standard process. Living Way looked for an objective, standard filter to identify high-potential entrepreneurs for its course.

Goals for completing the project included researching entrepreneurship at large and in South Africa, and creating a selection system for potential students. We began by examining entrepreneurship at large, asking questions about what drives entrepreneurs, how entrepreneurs found firms, and common traits amongst successful businesses. We then focused on South Africa particularly. Post-apartheid South Africa has a plethora of complicated factors that make analyzing anything on a countrywide basis difficult. Thus, we focused our research on entrepreneurship in townships and found interesting literature. From there, we began crafting a filter system unique to Living Way's circumstances.

As the project progressed, the scope expanded. We hesitated to look at things beyond our original goal, but we felt the inclusion of other factors was critical to making strong recommendations. Primarily, we rethought the entrepreneurship outreach strategy of Living Way and considered some other options, beyond training programs, to effectively stimulate entrepreneurship in Masiphumelele. Our reading and experience showed education and networking were key factors in entrepreneurial success. Further, interviews with Living Way staff uncovered interesting economic-boosting potential in simple mass-employment ventures, i.e. ones designed simply to employ people not necessarily start a business. While exploring these ideas remained secondary, our thoughts are included later in this report.

research findings

ENTREPRENEURSHIP ACTIVITY

The Global Entrepreneurship Monitor 2010 South African Report provides a comprehensive review of entrepreneurship in South Africa, as well as a measurement of entrepreneurial activity to provide intra-country and global comparisons over time. The principal measure of entrepreneurial activity for all countries participating in the report is the Total Early-Stage Entrepreneurial Activity index (TEA). According to the 2010 report, South Africa's TEA rate was at 8.9%, below the average of participating countries at 11.9%, ranking it 27th out of 59. This is also below the 11.7% average for all efficiency-driven economies and the 15.6% average for all middle- to low-income countries, consistent with its past performance and position below the median.

> "Much of the country's below -average entrepreneurial performance can be linked to its below-average scores on indicators of entrepreneurial attitudes and perceptions."

However, the Global Entrepreneurship Monitor (GEM) report expects a country at South Africa's stage of economic development to have a TEA rate around 15%, which is more than 60% greater than its actual rate of 8.9%. Much of the country's below-average entrepreneurial performance can be linked to its below-average scores on indicators of entrepreneurial attitudes and perceptions. An entrepreneurial culture will not exist until a favorable attitude towards entrepreneurship is fostered among South Africans.

Nonetheless, the nation has made improvements since 2009 in every category assessed by GEM. For example, its TEA rate has increased significantly from 5.9% to 8.9%, and its new firm activity has increased from 2.5% to 3.9%.

Despite changes in entrepreneurial activity, the profile of South African entrepreneurs remains consistent: 25-44 year-olds are the most entrepreneurially active (50-60% of all early-stage activity), whites and Asians are more likely to start a business than coloureds and black Africans. Men are 1.5-1.6 times more likely than women to participate in early-stage entrepreneurial activity, although no significant variations in business performance or productivity exist once they are operating their businesses. Furthermore, over the past three years the consumer services sector has maintained the majority (around 65%) of early-stage entrepreneurial activity.

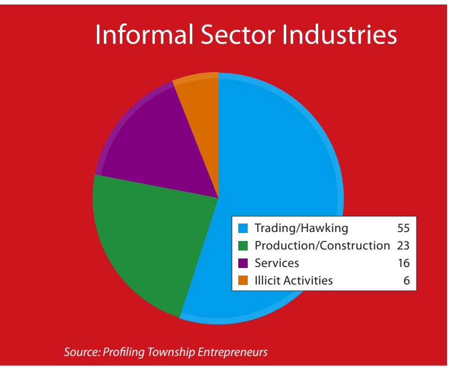
According to the 2010 GEM report, there are four constraining factors to entrepreneurial capacity in South Africa: government policies, government programs, research and development transfer, and primary and secondary level entrepreneurship education. Entrepreneurial education is currently most the limiting factor for South Africa: unless an environment more enabling for entrepreneurship presents itself, it is doubtful entrepreneurship rates will increase for South Africa.

Constraining Factors:

- government policies
- government programs
- R&D transfer
- education

Unfortunately, significantly less research has been done on the subject of entrepreneurship in South African townships. Townships are considered "the informal sector", this classification includes economic activities that are not accounted for on a national level. In South Africa, the informal sector represents an estimated 16-40% of GDP. Typically, township businesses in the informal sector can be differentiated by ease of market entry, reliance on local resources, small operating scales, labor intensity, possession of skills learned outside of formal education, and competitive and unregulated markets.

The profile of a township entrepreneur, though, is slightly different from the average profile of a South African entrepreneur in the GEM report. In the informal sector, entrepreneurs depend greatly on family members to help them run their businesses, as the family unit tends to be stronger in developing countries. As the male head of the household may waver between formal sector employment and falling back on the family business, many times the female head of the household is the steady, driving force behind the family business. Likewise, as males are culturally expected to financially provide for the family, in the face of unemployment they are more likely to turn to entrepreneurship out of necessity than opportunity. In general, most informal sector businesses are motivated by personal or family survival instead of return on investment or the drive to be entrepreneurial that is commonly found in the formal sector. Thus, few are prepared financially or skill wise. One of the biggest barriers to growth for township entrepreneurs is a lack of collateral and inability to raise external funding. Of the Khayelitsha entrepreneurs interviewed, 62% of used personal funds to start their business and 16% borrowed from family or friends.



An assessment of the informal sector delineated four broad categories for business activities: trading and hawking (55%), production and construction (23%), services (16%), and illicit activities (6%). In this study, an informal business was found to be operating in every fifth township house, and the most common ones were spaza shops, butcheries, barbers, seamstresses, and shebeens. Most of the Khayelitsha entrepreneurs interviewed only had a formal education through standard 5 and only 23% received some sort of formal job training afterward. Furthermore, significant positive relationships were found between operational sophistication of the business and the entrepreneur's amount of formal education or job training. This sophistication generally leads to higher sales, more jobs for family and non-family, and growth in the business. Although most township businesses are motivated by survival, entrepreneurs who reported to be driven by perceived opportunity tend to have more successful businesses.

COGNITIVE ABILITIES

In researching the nature of entrepreneurship, common entrepreneurial traits were found in various studies. In fact, scholars confirmed that "common cognitive scripts" of entrepreneurs are cross-cultural. Although there are more than four noteworthy characteristics of an entrepreneur, four traits create a core that encompass the others: the ability to recognize opportunities, creativity and innovation, perseverance, and social skills related to business.

We defined opportunity recognition as the ability to perceive and interpret surroundings, making use of information to exploit business opportunities. Research suggests that variations in cognitive processes allow entrepreneurial people to discern high-potential from low-potential opportunities and identify challenges before they impede the entrepreneur's success. For this reason, opportunity recognition contributes significantly to venture creation, the fundamental activity of entrepreneurship. In fact, other reports on nurturing entrepreneurial behaviors in youth lists "identification of opportunities" as a key entrepreneurial quality to foster throughout a child's development.

Key Cognitive Abilities:

- opportunity recognition
- perseverance
- creativity & innovation
- social skills

The grouping of creativity and innovation is defined as the ability to generate and recognize ideas, alternatives, or possibilities useful in solving problems. Creativity and innovation give the entrepreneur a competitive advantage. In order to reach new markets, entrepreneurs must creatively innovate to merge existing ideas into new products. Furthermore, scholars note, "creativity and curiosity" and "the ability to be innovative and tolerate uncertainty" are important entrepreneurial traits that, when spotted in youth and valued by society, will likely become "risk-taking and entrepreneurial behavior".

Consequently, the more creative and innovative entrepreneurs are, the greater chance they have of encountering uncertainty of buyers' demand, harsh skepticism, and costs associated with educating and persuading investors. Therefore, perseverance helps entrepreneurs endure financial and social adversity, as well as overcome other obstacles. We define perseverance as the ability to delay rewards and possess a steady persistence in a course of action, especially in spite of difficulties. Sometimes barriers can even motivate them. Not only do entrepreneurs overcome obstacles, they are inspired and challenged by them. Entrepreneurial social skills involve the ability to communicate effectively, foster good connections within and between social networks, and maintain relationships. Because entrepreneurs are entrenched in a social environment – tasks ranging from raising external capital to developing business networks to establishing trust – entrepreneurial success depends on their social skills. This ability to effectively interact with people can translate into the ability to manage employees and maintain relationships with them.

KEY THOUGHTS

After researching entrepreneurship in all of these areas and contextualizing the information for a potential entrepreneur in a South African township, we formulated eight key thoughts. These thoughts, concluded from our research, were guiding principles as we created recommendations and crafted a screening process. They are not a set of conclusive ideas or thesis statements, but simply the key ideas which guided our research.

1. In order to create economic empowerment, the percentage of people in the entrepreneurship pipeline must increase.
2. Education (general, not just business-specific) is most cited as a constaining factor of entrepreneurial growth.
3. There is a behavioral and skill set difference between opportunity entrepreneurs and necessity entrepreneurs.
4. Assuming the largest barrier to entrepreneurship is technical business skills could be flawed.
5. A strong business network provides a competitive advantage for an entrepreneur, as this provides opportunity for the growth of the business.
6. Succssful entrepreneurship requires strongly built social capital.
7. Entrepreneurial ideas have not been modeled in townships.
8. Aid organizations should spend resources creating more entrepreneurs in addition to helping the ones which already exist.

entrepreneurship development model

BACKGROUND

Our research, experience in Masi, and conversations with Living Way staff led us to question where, exactly, entrepreneurs came from. Why were there not enough entrepreneurs in Masi already? Was it just a matter of finding them, or did Living Way need to create them? These questions led us to synthesize our research and our observations, resulting in an interesting way to look at the situation.

Entrepreneurship literature has documented two things quite well. First, it can explain the development of firm. From idea conception to expansion and mergers, scholars understand the development of entrepreneurial enterprises. Second, the literature has concluded there is no particular set of personality traits that distinguish entrepreneurs from non-entrepreneurs in a predictable way. While the majority of entrepreneurs often share a set of personality traits (perseverance, for example), these traits are also shared among non-entrepreneurs. Thus, using personality as a screen or filter for potential entrepreneurs proves complicated and unreliable.

However, what the literature does not address and what scholars have not explored with cognitive ability is the development of entrepreneurs themselves. While scholars have studied entrepreneurs in action, they have not studied how they get to the point of action. Of entrepreneurs and non-entrepreneurs with similar personalities, what was different for the entrepreneur's development? Before creativity, perseverance, etc. are fully developed what do they look like? what does an entrepreneur look like? Are there "teenage years" of development for entrepreneurs? What would that look like? We believe there is a pipeline of development, much like with childhood, and that this development is the difference that marks if a person becomes an entrepreneur or not.

Using the framework of childhood development, we began to imagine how an entrepreneur develops. For example, children are born with the capacity to be social, to interact with other humans and function in society. However, if parents deprive children of social interaction during early childhood, they have great difficulty assimilating to society later in life.

Perhaps the same is true of entrepreneurs – many people are born with the capacity to become entrepreneurs, but without the right interaction early on in their development as people and business people, that capacity is not developed and thus cannot be exercised.

In Masi, for example, circumstances beyond an individual's control deprived many people from a proper education. Scholars have well documented the importance of education in entrepreneurship development. Could Masi be full of people with the under-developed capacity for entrepreneurship? Perhaps these entrepreneurs are not even to the point of asking the right business questions, but still are full of entrepreneurial potential.

With these questions and insights in mind, we developed a pipeline for entrepreneurship development – not the development of a firm, but the development of a person from having the capacity to entrepreneurial activity to actually exercising that capacity. As we'll see, this model extends far before simply needing business skills or a business-savvy vocabulary.

STAGES OF ENTREPRENEURSHIP DEVELOPMENT

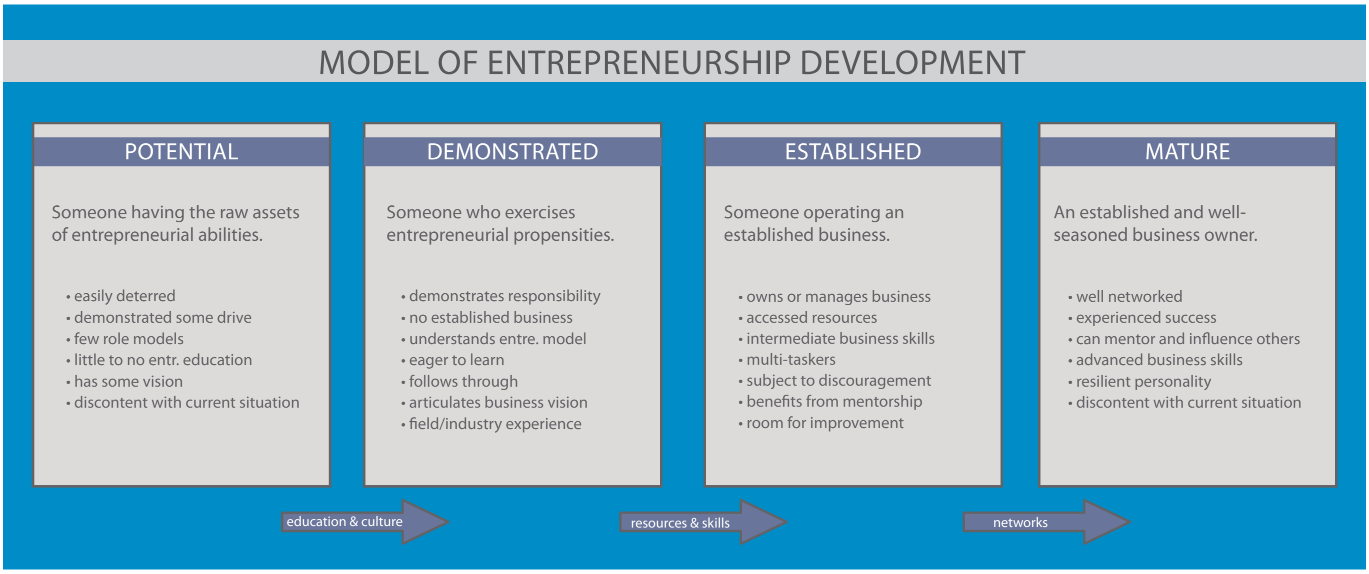
While this model could be universally applied, the specifics below were intended for the South African township context. People who had the potential to demonstrate the key entrepreneurial traits were placed somewhere along a pipeline of four categories: potential, demonstrated, established, and mature entrepreneurs. While these stages were of importance in observing entrepreneurship, the critical application for Living Way was found in the steps of development connecting each stage to the next.

The model identified a potential entrepreneur as someone having the raw assets of entrepreneurial abilities but the assets were not developed enough for practical application. These people were often easily deterred and often had no entrepreneurial role model. However, they would express discontent with their current situation, showing some drive to change their destiny, and were able to articulate some type of vision, even if with ambiguity. This category was much like a young child full of potential to develop into a world-class musician, artist, or athlete, but in need of encouragement and guidance to gain the confidence needed to continue his or her pursuits.

The next stage in the pipeline was the demonstrated entrepreneur. This person was defined as someone who exercises entrepreneurial propensities, but has not yet established a business or refined business skills. This category could be compared to the recent college graduate or ambitious high school graduate in the United States who wishes to open a business. He or she has articulated the idea, drawn up some type of business plan, albeit rough and incomplete, and might have even tried the venture but without success. These people were eager to learn and could follow through with requests, such as completing basic market research. They likely had some field experience and understood the basic ideas of entrepreneurship.

As an entrepreneur continued in his or her venture, they developed, according to the model, into an established entrepreneur. This stage was characterized by access to resources, the existence of successfully started business, and sustainable competency at running the venture. However, these people had room to learn new skills and could benefit from mentorship. Furthermore, the business operations could be significantly improved and streamlined for greater efficiency.

The last stage of entrepreneur development was the mature entrepreneur. This was an established and well-seasoned business owner. These entrepreneurs know their market well and have developed successful, profitable, and sustainable businesses. This was the ultimate goal of each entrepreneur.



Each of these steps has a gap between them, an event that must take place for a person to progress in the pipeline of entrepreneurship development. As explained below, they are things like education, cultural expectations, and business skills. These gaps are the places that stifle development in specific entrepreneurs and thus an economy (such as Masi). Aid organizations, such as Living Way, should view each of these gaps as opportunities for aid, either bridging gaps or making the bridges more accessible to more people.

The gap between the potential entrepreneur and the demonstrated one was the most ambiguous to cross yet most critical – education and culture. Cultural values played the most primary role in developing the mindset of an entrepreneur. These values set expectations for careers and molded the way society shaped its potential entrepreneurs.

In the United States, small business ventures were overwhelmingly common and generation after generation saw the opportunity to become a small business owner. Growing children were surrounded by models of entrepreneurship which instilled core values of entrepreneurs, such as opportunity recognition. However, this was not the case in South Africa, especially in the townships. Children growing up in townships had two career paths modeled for them: low-wage manual labor (domestic work, gardener, cashier, etc.) or unemployment supported by welfare and relatives' income.

In places like the United States and other high-entrepreneurship countries, a key reinforcing factor of this cultural value of entrepreneurship was education. Developing the technical skills (math and literacy) and critical thinking skills (analyzing situations, understanding cause and effect, personal relationships, etc.) provided the tools necessary to carry out the ambitions inspired by the cultural value of entrepreneurship. Thus, this combination of education and entrepreneurship could develop a potential entrepreneur into a demonstrated one capable of making a basic business plan and understanding core business concepts, such as profit.

The next gap, from demonstrated entrepreneurs to established ones, was bridged by resources (i.e. capital) and skills (e.g. accounting, marketing, etc.). For many entrepreneurs in the United States and Europe, the typical business degree fulfilled that purpose. In South Africa, though, such education was unheard of for township residents.

The last step, from established entrepreneur to mature, was bridged by experience and networking. As an established entrepreneur gained more resources and skills, his or her experience allowed the business to be refined and operated more efficiently. Furthermore, networking with other business owners would allow the entrepreneur to gain support from the business community.

IMPLICATIONS

This theory provides a different paradigm for viewing Masi and other economically under-developed areas. Current theory tries to find entrepreneurs and equip them with necessary business skills to succeed. This assumes, of course, there entrepreneurs ready to be trained in business skills. If not, can they be developed to that point?

Much research has tried to link personality traits with entrepreneurship success. This mindset, though, still rests on finding entrepreneurs, not creating them. Our model demonstrates that there are many potential entrepreneurs, though they show no business-related signs of being so.

Thus, viewing under-developed areas as full of potential entrepreneurs changes the way NGOs and organizations shape their outreach. Instead of looking for entrepreneurs and equipping them with skills, they must look for potential entrepreneurs and develop their core competencies so they can try entrepreneurial things and develop entrepreneurial ambitions

While each stage of entrepreneurship was important, the bridges between each of them are of more importance for Living Way. Using this model, we realized most of Living Way's students were potential entrepreneurs, yet Living Way's programs looked to help demonstrated entrepreneurs.

recommendations

After concluding observation and research, we developed several recommendations for Living Way. While they could be implemented as described below, we envision the recommendations being more effective as starting points for Living Way staff and volunteers more familiar with the specific context to brainstorm new ways to reach Masi. They are places to start the conversation that we hope will evolve into a highly impacting, very specific solution for Living Way's needs.

> "We envision the recommendations being more effective as starting points for Living Way staff and volunteers more familiar with the specific context to brainstorm new ways to reach Masi."

SCREENING PROCESS

The screening process we developed gives candidates the opportunity to display the four key entrepreneurial traits – the ability to recognize opportunities, creativity and innovation, perseverance, and social skills related to business – through games and simulations. These activities are designed for a three hour introduction to entrepreneurship workshop, but they could easily be incorporated into Living Way's Worker Readiness classes. However, in both environments the participants or students should not be aware that they are being screened as possible candidates for the entrepreneurship course, as this could influence the results.

Based on our assumptions that not all people qualified for entrepreneurship development show adequate business skills, we designed the simulations to test core competencies present in entrepreneurs. It avoids specific business skills like pricing, marketing, or business plans. By focusing on cognitive abilities instead of skill sets, the simulations identify people in all stages of the entrepreneurship development model, not just demonstrated entrepreneurs. Facilitator notes on each person's performance can help Living Way staff see where each person is along the model and thus recommend appropriate courses. Detailed instructions for each exercise are in the appendix.

The first simulation is Adding Value, and it tests primarily for creativity and innovation and secondarily for opportunity recognition. A common object (coffee mug, stove, bunch of carrots, etc.) is drawn on the board or easel pad, and the participants take turns adding value to the object. The facilitator needs to make the first addition and encourage the participants to think outside the box. Students with strong creativity and innovation will be able to create new additions, push boundaries of technical possibilities, and provide solutions applicable to others as well. When the participant adds value that makes the product more marketable instead of personally useful, opportunity recognition is displayed. This game teaches three lessons: people always desire their needs to be better met, the best solutions might require pushing technical boundaries, and the greatest innovations often work off of the achievements and discoveries of others. In our field testing, we observed that the participants were hesitant to both speak up and push technical boundaries.

The next exercise is One Minute Pitch, and it tests the social skills of the participants. The facilitator divides the participants into groups of 4-6 and provides a topic to be pitched (i.e. a business idea, a personal pitch for employment, a new product, etc.). One group will rotate and the other stays stationary. Provide a minute for group one to explain their idea to their partner, and then provide a minute for feedback and ideas for improvement from their partner. Then the other partner pitches, the exercise repeats, one of the groups rotates, and this continues until participants have pitched at least five times. Strong social skills are evident when the participant seems comfortable interacting and sharing their results after a few rotations. However, a consistent hesitancy to interacting might indicate a low potential to develop the social skills necessary to build business. The lessons from this exercise teaching that entrepreneurs must be ready to clearly and concisely explain their idea or business, and feedback from others can make the idea better. When this exercise was performed in a workshop, it combined elements of Adding Value (above) and Buying and Selling (described below), as the participants were pitching an existing product to the other group, with the goal of adding value and selling it for much higher than its original price. We observed that the participants seemed shy when it was their turn to pitch, and then they were hesitant to bargain with one another, as they usually accepted the first price given. They also tended to describe more physical features of the product than how certain features would benefit the customer. The same struggle for creativity observed in Adding Value was evident in One Minute Pitch as well.

Next is the Newspaper exercise. It primarily assesses Opportunity Recognition and secondarily assesses Creativity and Innovation. Each participant reviews identical articles from a newspaper, pre-screened for local stories that can provide inspiration for business ideas or products. They read the newspaper and look for opportunities where a new business could solve a problem in the story, and write down as many ideas as possible in 10 minutes. Then they can share their ideas with the class and discuss ways to improve and grow the businesses. The products do not have to be realistic and can push technological boundaries. If participants have a strong ability to recognize opportunities, they will recognize problems in various newspaper articles and devise a solution. Creativity and Innovation is displayed in the way participants respond to problems identified in the articles. If an existing solution is suggested that does not quite address the problem, less Creativity and Innovation is revealed. The learning lesson from this exercise is that entrepreneurs must empathize with people outside of their daily lives and understand their problems and needs for greater business opportunities. When this exercise was run in a workshop, the participants that understood the objective of the game did really well at producing ideas. However, those that seemed confused really had trouble with the exercise.

The fourth game is Buying and Selling. It tests Social Skills and Opportunity Recognition. Before the game, the instructor selects 10-15 items to use in the exercise, ensuring the items could be sold as is and also improved upon (i.e. jar of cookies, carrots, coffee mug, school supplies, etc.). The participants are divided into two groups. One group will be the buyers and the other will be the sellers. Group one owns the items and decides to how much they want to sell them all for, individually or as a whole. With the assumption that they will buy and resell the products, group two simultaneously evaluates the items for potential improvements and negotiates a fair price with group one after 10 minutes. Then discuss the improvements group two envisioned to increase the value of the items. The social skills of the participants will be revealed during the price negotiations and collaboration in ideas for product improvement.

Those more hesitant to speak up during these activities will have trouble interacting socially in a business setting. As the group assesses the items for potential improvements, the participants with the ability to recognize opportunities will see creative uses for otherwise dull products. Lessons from this exercise show an object's value depends on what it can potentially become, and one man's trash could be another man's treasure, as this creates buying and selling opportunities. In observing this exercise, it was evident that the participants had difficulty thinking of ways to improve their products. For example, a bunch of tomatoes were only repackaged and sold at a higher price, and a jar of cookies were only packaged into smaller quantities.

The last game is the Ball Toss to assess perseverance. Two teams stand equal distance from two buckets and for a set time attempt to toss balls into the bucket. The team with the most balls in the bucket wins the round. During round two, though, the facilitator moves one teams bucket further away, with no explanation. Another round is played, and then the bucket is moved even further back with no explanation. Participants display perseverance by continuing play through the rounds, and it is tested when the game becomes unfair by moving the buckets. Participants reveal this in their attitudes, through comments and participation, as well as their behavior after the prize is announced. The Ball Toss teaches that perseverance is more than simply enduring – perseverance includes a mentality that continues throughout struggles even when circumstances are unfair.

EDUCATION OUTREACH

Research identifies education as a primary reason South Africa has lower than expected entrepreneurship rates and our model shows this is a key bridge. Skills learned in primary and secondary school are essential for entrepreneurial success. Competencies ranging from social skills to math skills all contribute to the success of entrepreneurial ventures. Further, simply educating students about the possibility of owning their own businesses is important. Many township residents, as we discovered from observation and interviews with staff, grow up with severely limited paradigms for career success. The possibility of owning their own businesses, especially those beyond simple spaza shops, barber shops, etc. is unknown to many.

A viable and necessary outreach strategy for changing the landscape of entrepreneurship in South Africa, then, is improving business education. While, ideally, education would be holistic an encompass everything needed for successful careers, this is untrue for many schools in townships. NGOs looking to increase economic activity and especially entrepreneurial activity must start at the root: education. Organizations such as Junior Achievement (JA) and others already working in this space are seeing traction. Opportunities for creative applications beyond just JA curricula exist too.

NGOs should examine what incentivizes children to drop out of school and see if those incentives can be working into an educational opportunity. For example, when children drop out of school to work and support the family, NGOs like Living Way could have an employment venture (farming tunnels, etc.) that employs the children and teaches them about business, thus providing income and the education that would otherwise be lost. The brokenness of education in the current South Africa cannot be ignored, but neither can the economic realities keeping children from the little education that does exist.

The largest challenge to approaching education is the slow rate of return for investment. Often the best solutions in the end are the most difficult to put into action. Stakeholders, sponsors, donors, and grant makers want to see immediate results. Targeting economic development at the educational level requires years to see impact potential. Recognizing this, though, NGOs must still know that until they address the root causes of low economic activity, nothing will sustainably change. Programs like an employment/education hybrid are ways to show immediate results (employing people) and also overcome long-term challenges (education).

NETWORKING DEVELOPMENT

While not a high-priority recommendation of this report, it is worth noting developing established entrepreneurs into mature entrepreneurs strengthens the entire business network, which benefits the whole pipeline of entrepreneur development. This is evidenced by the strength of business networks in well-established economies. Local regions such as Fish Hoek and larger areas such as Cape Town are strengthened economically when business form alliances to pursue interests beneficial to all.

Facilitating the creation of business chambers and associations will established a clear target for aspiring businesses. By initiating the creation of associations and then hosting and nurturing them, Living Way can help strengthen the fragmented economy of Masi. Because of local culture, attitudes, and habits, it can be difficult for these groups to sustain themselves.

We believe it is because of worker's illiteracy in business matters (many people are in the first or second stage of entrepreneurial development and do not understand why such groups are important or how to sustain them) and cultural hesitancy that these groups fail to sustain themselves if created. In both challenges, it can be difficult for NGOs like Living Way to start and spin off a networking organization. However, even if the group cannot be successfully spun off, its benefits still remain.

Further, business alliances provide a resource for internal mentoring of Masi (or other target areas). A key in long-term business development is the presence of local mentors who can guide and direct up and coming entrepreneurs. An efficient way to connect those in need of entrepreneurs and those who can mentor is through a chamber of commerce.

MASS EMPLOYMENT OPTION

Furthermore, a mass employment option should be considered for Living Way. Under the current model, Living Way only has the capacity to journey with a few entrepreneurs, guiding them and teaching them over a long period of time. While this approach appears extremely effective for those on the journey, a mass employment option might be a more efficient way to produce entrepreneurs and reduce unemployment. For example, the a larger agri-business farm could provide a platform for training and mass employment, as well as uncover potential entrepreneurs. After watching employees work for a few months, some of the workers will display entrepreneurial qualities and possibly do well in the entrepreneurship course. In this way, the end goal of Living Way – economic empowerment – is being fulfilled more efficiently and holistically. Similar to the screening process outlined above, this mass employment option allows Living Way to screen for candidates to journey with while creating jobs for the unemployed.

conclusions

CLOSING THOUGHTS

The work of Living Way is front-line and cutting edge. There is little precedent for how to approach these challenges of low education, a disinterested population, welfare-sustained inefficiency, and development of entrepreneurship from the ground up. However, Living Way and like firms are making progress. We recommend that above all, Living Way see how all its programs and efforts are learning efforts and real-time contributions to economic development.

Further, there is no standard method firms can replicate in a variety of cultural circumstances to develop entrepreneurship. Culture is core to business, and economies, though working towards efficiency, operate differently from one country to the next, or even one providence or the next. Personality and cultural norms, too, play a heavy role in entrepreneurship. For economies to develop entrepreneurs must be bold and courageous and NGOs must recognize they are working for cultural change, too, not just personal development.

Living Way should not look to others for models for replication, but for inspiration. Based on literature, examples, and experience Living Way can craft custom solutions (such as farming tunnels or a bakery) that are unique to Masi's situation. It should be careful in seeking to replicate programs or successes in other cultures. Many minute details which contributed to success might not replicate in Masi. Further, an idea failing in another context should not necessarily discourage Living Way from trying it custom-fit to Masi.

The work is trailblazing, and experiences have success points and opportunities for shaping a better program. In summary, this report provides a new perspective for approaching the problem. It does not assert this perspective is wholly accurate or that, if so, it is the only perspective. Living Way and its staff should continue seeking new ways to understand and interpret the challenges it faces.

KEY ARTICLES

We reviewed many articles, organizations, websites, and other information in compiling this report. Below are several articles we found of key importance. They are attached in the appendix, and the summaries below are based off article abstracts.

Distinguishing Economically from Legally Formal Firms - Targeting SA Townships

As governments and NGOs deliver aid to many businesses every year, this article seeks to identify which businesses have high potential for sustainability and which do not. Based off an in-depth study, the article explains "(1) The business and owner traits that predict revenues and job creation among the township entrepreneurs, (2) The key issues that challenge township entrepreneurs; and (3) What the answers to these issues imply about the appropriate content and recipients of business assistance to township entrepreneurs." It was very helpful in understanding the state of SMEs in townships.

Entrepreneurship Training for Emerging SMEs in South Africa

This article ananlyzes the various training programs for SMEs in the Northern Province of South Africa. Helpful sections included the study results and recommendations. The results indicated various factors and traits common with entrepreneurs (such as creativity, etc.) and painted an informative picture of the people involved in SMEs. The recommendations, though specific to their context, illustrate key underlying principles in developing business.

Global Entrepreneurship Monitor: 2010 South African Report

Recommended by Living Way staff, this provided a helpful framework through which to view entrepreneurship activity. Its weakness is the focus on formal business and entrepreneurship, but the tools and definitions are helpful in understanding entrepreneurship. Further, comparing South Africa's rates to other countries helps uncover opportunities for improvements.

Informal Sector Activity as Entrepreneurship - Insights from South Africa Townships

Where the GEM reports focuses on formal activity, this study was sheds light on informal activity. Survey results show where products is sold and to whom, as well as data on materials sourcing. It compliments Profiling Township Entrepreneurs to provide a look at what entrepreneurship in townships looks like.

Leading Entrepreneurship Education Institutions in South Africa

A simple yet thorough report, this paper shows the results of the Umsobomvu Youth Fund's study into existing entrepreneurship education efforts. It is a helpful peer analysis and shows which efforts seem to be working and which do not. It can serve as a helpful inspiration tool for exploring new programs focused on education.

Person-Entrepreneurship Fit – Why Some People are More Successful as Entrepreneurs than Others

This article is core to our model of entrepreneurship development. The authors argue there are a number of characteristics which, if present in a person, indicate a high potential for entrepreneurial fit. It is similar to predicting entrepreneurs based on personality, but frames traits in an interesting way which led us to conclude that such traits could be detected early on and development for entrepreneurship. The authors explanations of self-efficacy, opportunity recognition, perseverance, and social skills were influential in the development of our screening criteria.

Profiling Township Entrepreneurs

This extensive study was informative to the local scene of entrepreneurship in South African townships. Conducted by a scholar at the University of Cape Town, she is knowledgeable of the South African context and provides a respectable look at what entrepreneurs in places like Masi look like. Chapter 2 provides high-level insights while Chapter 4 provides the profile for township entrepreneurs. Chapter 3 is a helpful starting place if Living Way desires to conduct any surveys or studies of its own.

FURTHER READING

Bergmann, Heiko. Opportunity Recognition among Intentional and Nascent Entrepreneurs. Thesis. University of St. Gallen, 2011. Stockholm: ICSB World Conference, 2011. Print.

Bradford, William D., and Alfred E. Osborne, Jr. "The Entrepreneurship Decision and Black Economic Development." Trend and Analysis of Black Economic Development 66.2 (2001): 316-19. Web.

Clark, Walter H. "Two Tests for Perseverance." The Journal of Educational Psychology 26.8 (1935): 604-10. Print.

Dalglish, Carol. From the Informal to the Formal Sector: Micro-enterprises in a Developing Economy – Research in Progress. Thesis. 2007. QUT, Brisbane: Proceedings AGSE Research Exchange, 2007. Print.

De Miranda, Paulo C., José Alberto S. Aranha, and Julia Zardo. "Creativity: People, Environment and Culture, the Key Elements in Its Understanding and Interpretation." Science and Public Policy 36.7 (2009): 523-35. Print.

Glaeser, Edward L., and Andrei Shleifer. "Not-for-profit Entrepreneurs." Journal of Public Economics 80 (2000): 99-115. Web.

Haftendorn, Klaus, and Carmela Salzano. Facilitating Youth Entrepreneurship: Part 1. Working paper no. 59. Geneva: International Labour Organization, 2003. Print.

Hansen, David J., and G. T. Lumpkin. "Testing and Refining a Creativity-Based Model of Opportunity Recognition." Frontiers of Entrepreneurship Research 29.17 (2009). Print.

Herrington, M. D. The UCT Centre for Innovation and Entrepreneurship. Thesis. UCT Graduate

School of Business, 2009. Cape Town, South Africa: University of Cape Town, 2009. Print.

Johnston, Kevin A., Barry K. Anderson, Jennifer Davidge-Pitts, and Mark Ostensen-Saunders. "Identifying Student Potential for ICT Entrepreneurship Using Myers-Briggs Personality Type Indicators." Journal of Information Technology Education 8 (2009). Print.

Kew, Jacqui, Penny Kew, and Mike Herrington. GEM South African Report. Rep. Global Entrepreneurship Monitor, 2010. Print.

Kew, Jacqui. Profiling South Africa's Township Entrepreneurs in Order to Offer Targeted Business Support and Assistance. Thesis. The Graduate School of Business University of Cape Town, 2002. Cape Town, South Africa: Graduate School of Business, UCT, 2002. Print.

Ladzani, Watson M., and Jurie J. Van Vuuren. "Entrepreneurship Training for Emerging SMEs in South Africa." Journal of Small Business Management 40.2 (2002): 154-61. Print.

Leading Entrepreneurship Education Providers in South Africa. Thesis. University of the Western Cape, 2004. Umsobomvu Youth Fund, 2004. Print.

Lingelbach, David, Lynda De La Vina, and Paul Asel. What's Distinctive About Growth-Oriented Entrepreneurship In Developing Countries? Thesis. University of Texas at San Antonio. Print.

Markman, Gideon D., and Robert A. Baron. "Person-entrepreneurship Fit: Why Some People Are More Successful as Entrepreneurs than Others." Human Resource Management Review 13 (2003): 281-301. Web.

Morris, Michael H., and Leyland F. Pitt. "Informal Sector Activity as Entrepreneurship: Insights from a South African Township." Journal of Small Business Management (1995): 78-86. Web.

Njiro, Ester, and Thami Mazwai, eds. "Transforming Black Townships Into Economic Powerhouses." Proc. of Soweto International Conference, Soweto Campus, University of Johannesburg, Johannesburg. 2010. Print.

Rolfe, Robert, Douglas Woodward, Andre Ligthelm, and Paulo Guimaraes. "The Viability of Informal Micro-Enterprise in South Africa." Proc. of Entrepreneurship in Africa, Whitman School of Management, Syracuse University. Syracuse, 2010. Print.

Singh, Robert P. New Venture Ideas and Entrepreneurial Opportunities: Understanding the Process of Opportunity Recognition. Thesis. University of Illinois at Chicago. Chicago: Institute for Entrepreneurial Studies. Print.

appendix 1

screening process

SCREENING PROCESS
for entrepreneurial cognitive abilities

FACILITATOR NOTES

Background

This seminar was designed as a way to screen participants for entrepreneurial potential. Extensive research has documented common traits of entrepreneurs and discussed whether such traits are innate or cultured. Either way, people most evidently display these entrepreneurial traits in action. Thus, instead of a survey, test, or personality assessment, this seminar uses exercises which create a platform for participants to display entrepreneurial potential.

In addition to the exercises, a scoring matrix has been developed to aid facilitators in effectively perceiving high-potential participants. The matrix is not designed to produce a standardized score, as the scoring is still subjective to the facilitator. However, the matrix and numerical scores aid the facilitator in putting the traits, games, and participants in a uniform context for judging.

Like any seminar or exercise, the effectiveness is contingent upon cultural relativity and the cognition level of participants. This seminar is designed for participants in South Africa's townships. This demographic includes high unemployment, historical structured socio-economic disadvantage, low education, and low wealth. Even within this context, though, facilitators should be sensitive to potential challenges in effectiveness and adjust the exercises as necessary

Room Layout

It's important to ensure the room is setup in a comfortable way that allows participants to relax and enjoy the exercises. Below are some things to consider.

• Furniture: Layout the desks so participants can see each other as well as easily see the facilitator and easel. Also remember many exercises require participants to move around, so ensure it's easy to get to and from the desks. Setting desks in pods – sets of four to six desks in a circle – with the facilitator at the front is an effective layout.

• Environment: Consider the lighting – be sure the room is well lit and open blinds for more natural light. Playing music softly in the background, as well, can stimulate thinking and reduce the awkwardness of work time and other quiet moments.

• Supplies: Plan ahead to assure all supplies are prepared. Have extras, e.g. puzzles, pens, etc., and do a dry run of easel pad exercises. Make sure drawings are in the right order, etc.

Context

Explain at the start this is a seminar for participants to learn more about entrepreneurship and experience some simulations of entrepreneurial thinking. While it's best to not share that facilitators are scoring participants, you could share that facilitators are taking notes to help participants learn more and understand their strengths and weaknesses.

Facilitator/Participant Ratio

The success of this screening seminar is contingent on personal interaction and observation. We recommend one facilitator for every six participants. While one lead facilitator can run the exercises, each group needs a dedicated person to observe their participants and score them.

Scoring

It's important to understand the seminar does not produce an objective, numeric score independent of facilitators observations, rather it creates a framework from which facilitators should judge participants. The numerical scores are simply to help the facilitator understand to relationship among participants during that simulation. For this reason, writing notes in the scoring boxes is particularly helpful. If multiple facilitators are participating in a session, it is wise to discuss the scoring guidelines before the seminar so participants are observed and scored from a common standard understood by all the facilitators.

Briefing

Begin the seminar by welcoming participants and sharing your background. Explain again the purpose of the seminar: for them to learn about entrepreneurship and its challenges, and to experience entrepreneurial thinking with some games and exercises.

Being friendly, open, and personal during this briefing will create trust and security among the group. This allows the seminar to operate with participants comfortable sharing and playing the games.

Debriefing

While each game has a time for reflection and discussion, it's important to sum up the seminar before ending. This will give participants closure and help them understand the exercises in a grander context.

Take time to review the games and these lessons learned in each. Then share how these exercises, seemingly silly and not relevant to running a business, teach us things about running a business. Perhaps use anecdotes from previous students. Soliciting participant feedback during the debrief can be help, but you will want to lead the conversation to ensure it stays relevant and on track. However, be sure participants can ask any last questions or workout thoughts before ending.

ADDING VALUE

inspired by SAIE's MicroPlan

Title: Adding Value
Time: 15-30 minutes
Supplies: Paper, Pens
Traits: Creativity and Innovation (also, Opportunity Recognition)

Instructions:

Pre-Game: Draw pre-selected objects for adding value on an easel pad, one object per page. Each object is one round, and the exercise can be repeated as needed.

1. Split class into groups of 4-6 people, each group with its own easel pad and uniform objects.
2. Have each groups facilitator lead the group in adding value to the object. Items can be imaginary or real – the goal is to create improvement that make the product more useful to more people. Have participants come to the easel, draw their addition, and explain its usefulness.
3. Continue until the group can create no more additions or everyone has added value, typically 7-10 minutes.
4. Choose the best additions and discuss them with the class. Note differences in additions that make the product more marketable versus more useful to a particular person.

Alternative: Run the exercise first as a large group with heavy facilitator involvement to demonstrate the process and encourage creativity.

Alternative: After running the exercise as a large group (see first addition), run it again but individually. Present the class with an object, tangible or drawn on the easel, and have them make additions on their papers, turning them in for individual assessment.

Challenges:

- Understanding what type of additions are allowed (i.e, are imaginative solutions possible or only what could actually be done?). To encourage creativity, allow any type of addition. For example, one could add wings to a coffee mug so it follows the user around.

Observation Tips:

CI: Participants demonstrate CI by creatively adding value to the original product. Students with a low propensity for creativity will find it difficult to create new additions, or their additions might already exist (perhaps in an upscale or more expensive model of the same product). Students with strong CI will be able to create new additions, push boundaries of technical possibilities (e.g. a can of food will heat and open itself), and provide solutions that are applicable to more people than themselves.

OR: Opportunities are recognized when participants can provide value adds that make the product more marketable versus more personally useful. It might be hard to discern the motivation for additions, so be careful to weight the exercise lightly when judging for OR.

Scoring Guidelines:

CI:
1: Isn't able to create any additions or additions are of no value and frivolous.
5: Creates significant additions, but often mimic additions already in existence or additions are only tailored to participant and not a broader market.
10: Creates significant additions that push technological limits and appeal to a broad base. While potentially based on existing solutions, the additions still show innovation.
OR
1: Additions poorly represent opportunities to appeal to broader market.
3: Additions draw from experience beyond that product and begin to merge ideas.
5: Additions merge ideas to create innovations and appeal to new market opportunities.

Learning Lessons:

- People, who are all customers, constantly wish things worked better for their needs.
- The best solutions require the boundaries of technical ability to be challenged.
- Our best innovations often work off the achievements of others. They're not possible alone, and collaboration brings the greatest advances.

ONE MINUTE PITCH

inspired by National Entrepreneurship Network

Title: One Minute Pitch
Time: 30 minutes
Supplies: none
Traits: Social Skills

Instructions:

Pre-Game: Identify what the participants will be pitching. Choose what best fits the context, e.g. a business idea, a personal pitch for employment, a new product to a customer. (Perhaps use the products from Adding Value game.)

1. Divide participants into groups of 4-6. Line the groups up to face one another. One group will rotate partners, the others will stay stationary (which is which is irrelevant).
2. Provide a minute for group one to explain their idea to their partner. Then provide a minute for feedback from their partner. They can share how to make the pitch better and provide new ideas. Reverse who pitches, repeat exercise, then rotate partners and repeat until participants have pitched at least 5 times.
3. Discuss how the pitch became more precise and effective throughout the exercise. Point out which parts become more relevant to the listener and which parts participants found were of little interest.

Observation Tips:

SS: Participants with strong social skills will feel comfortable, after time, interacting and sharing their results. A strong, continued hesitancy to interacting might indicate a low potential to develop the social skills necessary to build business.

Scoring Guidelines:

SS:

1: Participants are hesitant to share information, stumble in presentation, and are generally shy.

5: Participants interact, but without hubris and confidence. Pitches are poorly phrased and there is little improvement between feedback sessions.

10: Participants are comfortable interacting and discussing their pitch, and the pitch improves with feedback, becoming more relevant and effective.

Learning Lessons:

- People, especially entrepreneurs, must always be ready to explain their idea or business quickly and clearly to people.
- Talking with others about your idea makes it better, not worse.

NEWSPAPER

inspired by National Entrepreneur Network

Title:Newspaper
Time: 20 minutes
Supplies: recent local newspapers
Traits: Opportunity Recognition (Creativity and Innovation)

Instructions:

1. Provide each participant with several pages of the newspaper. Be sure each participant has the same pages and that they include local stories that can provide inspiration for business ideas or products.
2. Instruct participants to read through the paper, looking for opportunities where a new business could solve a problem in the story.
3. Have them spend 7-10 minutes developing ideas on their own to turn in on paper.
4. Share ideas with the class and discuss ways to improve and spread the business.
5. Repeat, but this time participants should create a new product that solves a problem they read about. Share with class, if time allows.

Challenges:

- It could be difficult to read from the reporting context and translate into business opportunity. The facilitator may need to walk through several examples. Also note they need not have a fully developed business, just a rough idea of how an entrepreneur could solve a problem.
- It's possible pages of the paper won't have many opportunities. Pre-screen the paper to ensure there are

plenty of opportunities for recognition.
- It could be unclear that products don't have to be realistic and are allowed to push technological boundaries.

Observation Tips:

OR: As a key test for opportunity recognition, participants should be able recognize problems in various newspaper articles and then devise a solution. Participants who see no way to help better the situations in the stories likely have a low ability to recognize problems and opportunities.

CI: The way participants respond to problems identified in the stories will speak to their creativity. For example, suggesting an existing solution that somewhat addressing the issue at hand demonstrates less creativity than imagining a new solution which more adequately addresses the problem at hand.

Scoring Guidelines:

OR:
1: Little or no ideas are explained; participant doesn't show the ability to see business opportunities from stories.
5: From a story, participants can articulate the problem and discuss a potential solution, though the idea may not be a well-formed business model.
10: Participants can synthesize two or more articles and create a business opportunity that is viable, explaining, though vaguely, where costs and profits would exist.
CI:
1: Participant puts forth few ideas or ideas are simply copies of current products.
5: Participants develop helpful, realistic products to address problems, but products are more adaptations of current products and effectively address the problem in the story.
10: Products created are innovative and pushing technological boundaries. It's evident the participant created the product specifically to address the issue.

Learning Lessons:

- Many business opportunities exist beyond people's daily lives. Entrepreneurs must emphasize with others and understand their problems and needs, too.

BUYING AND SELLING

inspired by SAIE's MicroPlan

Title: Buying and Selling
Time: 20 minutes
Supplies: objects (see below)
Traits: Social Skills (Opportunity Recognition)

Instructions:

Pre-Game: The exercise will run better if the instructor selects 10-15 items to use in the exercise, ensuring the items could be sold as is and also improved upon. Suggested list includes jar of cookies, carrots, coffee mug, school supplies, etc. Things which can easily have value added (repackage cookies and sell at a mark-up, sell carrots ready-to-cook, etc.) work best.

1. Divide participants into two groups. If there are more than 12 participants, divide into four groups, two in the selling role and two in the buying.
2. Group one assumes they own the items and should evaluate how much they wish to sell the lot for, individually or as the whole. Group two assumes they will buy and resell the products and should evaluate potential improvements.
3. After providing the groups 7-10 minutes for evaluation, have them negotiate a purchasing deal,

explaining group one is to make as much money as possible and group two should purchase the items at the lowest price possible.
4. Discuss the improvements group two foresaw to increase products' value.

Observation Tips:

SS: The negotiation of pricing and the collaboration in improving products will allow participants to demonstrate social interactions. Participants who hold back or speak less, especially during crucial negotiation times, will have trouble interacting socially in a business setting.

OR: As the group views the products to improve upon, ones with a high propensity for recognizing opportunities will see creative uses for otherwise dull products.

Scoring Guidelines:

SS:
1: Participant interacts with team very little and is not active during negotiations.
5: Participant contributes to group discussion and negotiations, but is easily deterred and quieted; he or she lets others' opinion prevail without defense.
10: Proactive engagement during group discussions and negotiations is present; participant is resolved to defend his or her stance and interacts gracefully in doing so.
OR:
1: Participants show no recognition of profit opportunities or value of items beyond their current form.
3: Participants can see products could be sold for more with basic alternations. Improvements suggested already exist in the participants current day-to-day exposure.
5: Ideas for adding product value to items show participant thinks beyond current reference points (township, etc.) and looks into new markets.

Learning Lessons:

- The value of something depends on what it can potentially become.
- Even if one person doesn't value something or see it's potential usefulness, other might – this creates buying and selling opportunities.

BALL TOSS

inspired by STEPS to Excellence

Title: Ball Toss
Time: 15 minutes
Supplies: a bucket and ping pong balls for every 4-6 people,
a prize for the winning team (e.g. candy bars)
Traits: Perseverance

Instructions:

Pre-Game: Mark a line for groups to stand behind and place the buckets 2 meters from the line.

1. Separate into groups of 4-6 and have groups stand behind the line, with balls in hand.
2. The goal is to score as many points during 1 minute as possible. Inform participants that there will be three rounds, and they can quit if they wish or if it gets too difficult. At the facilitator's mark, participants of each team begin tossing balls into their bucket to score points.
3. Repeat the exercise, but once it's begun pull half of the buckets another meter away.
4. Repeat again, pulling the closest buckets to participants 2 meters away, and inform there's a prize for the winning team.
5. Discuss the difficulties of persevering and how attitudes changed after the prize was announced.

Observation Tips:

P: Perseverance is displayed as participants continue playing through the rounds, and it's tested when the game becomes unfair by moving buckets. Watch for participants attitudes through comments and participation, especially if they quit. Behavior after the prize is announced is particularly relevant.

Scoring Guidelines:

P:

1: Little participation beyond the first round indicates little perseverance, especially after the distance of buckets changes.

5: Participants continue through the rounds, but tire and become less active. They might show attitude changes, complaining about how things are unfair or uneven.

10: Persevering through all rounds, despite the change the distance or the announcement of the prize, indicates a raw perseverance that operates independently of environment.

Learning Lessons:

- Perseverance is more than simply enduring – it includes a mentality that continues through struggles even when the situation is unfair.

DRAWING EXERCISES

inspired by STEPS to Excellence

Title: Drawing Exercises
Time: 20 minutes
Supplies: puzzle handouts, pencils
Traits: Perseverance

Instructions:

1. Handout puzzles (perhaps multiple copies if possible, in case of mistakes) and pencils to participants.
2. Explain the instructions for game one: the participant must connect all sixteen dots by drawing six straight lines, but not once lifting the pencil from the paper. Announce they have five minutes to complete the exercise, and begin. Announce when each minute has passed and how many are left.
3. After five minutes, stop participants and show the answer.
4. Explain the instructions for game two: the participant must connect each pair of boxes with three lines (A-A, B-B, C-C). They can be curved, and they must not intersect. Announce they have five minutes to complete the exercise, and begin. Announce when each minute has passed and how many are left.
5. After five minutes, stop participants and show the answer.

Observation Tips:

P: While the goal is to solve the puzzle, that isn't the primary indicator of perseverance. Observe the participants attitudes and endurance and the time begins to run out. Participants with strong perseverance will continue strong to the end, even in the face of certain failure. Giving up, or despairing as the time limit approaches, signals low perseverance.

Scoring Guidelines:

P:

1: Participant gives up and doesn't complete the puzzle.

5: Participant tries at first, but eventually gives up before time is called or the puzzle is solved.

10: Participants continue at the puzzle, showing determination, and either solve them or work up to or past the time limit.

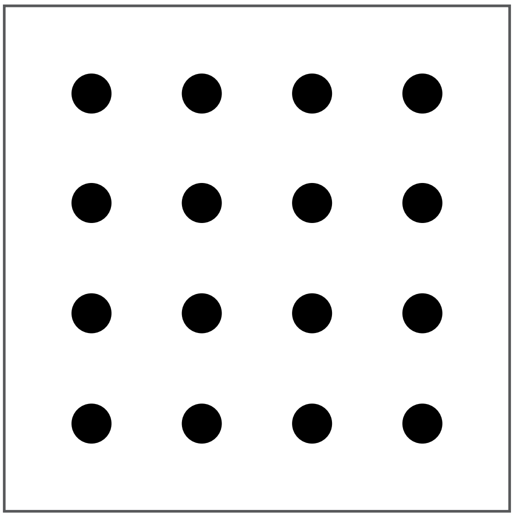
Learning Lessons:

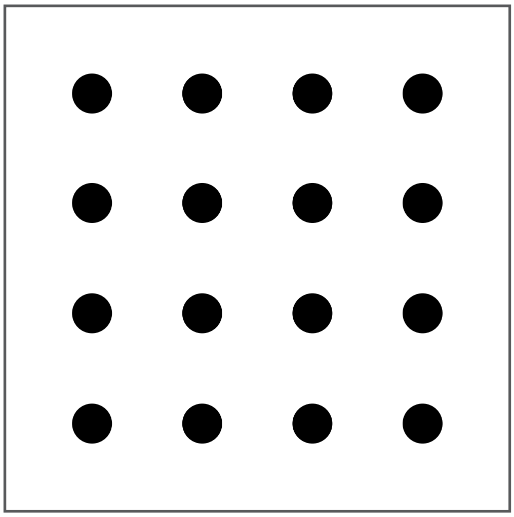
- Often in business, deadlines are imposed on tasks and it’s important to work until the task is completed as opposed to despairing because you may not finish.

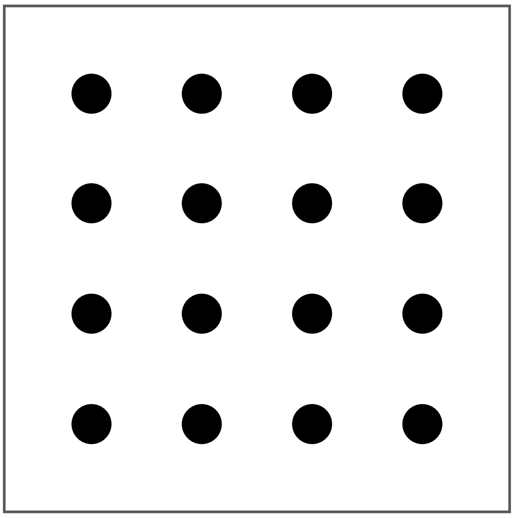
DRAWING EXERCISE 1

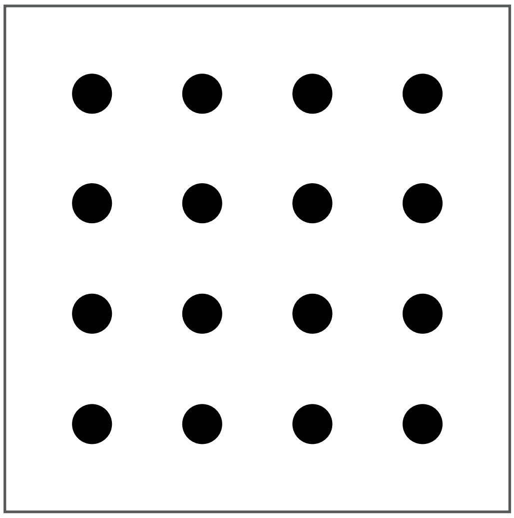
Below is a square of 16 dots. Using your pen or pencil, connect all 16 dots with just 6 straight lines and without lifting your pen or pencil after you begin drawing.

We've printed the set of 16 dots several times in case you need to start over.





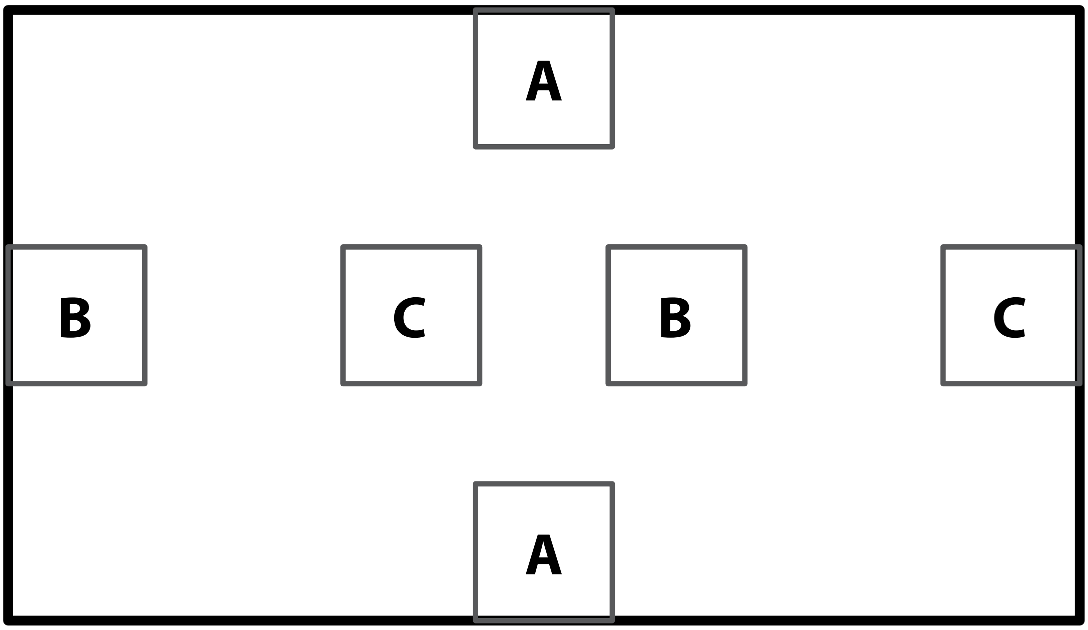


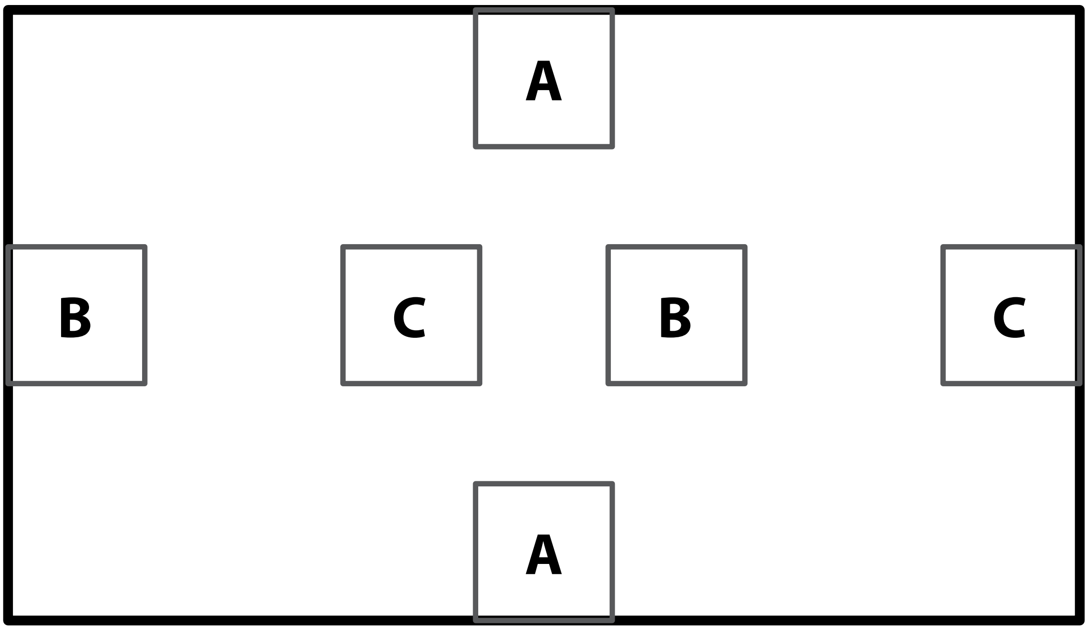


DRAWING EXERCISE 2

Below is a box with three sets of boxes inside. Using three lines, connect the pairs of boxes (A with A, B with B, C with C). However, the lines cannot intersect nor can they go beyond the large boundary.

We've printed the exercise several times in case you need to start over.





This exercise is adapted from a published version by The Pacific Institute.

	Buying & Selling	Drawing Exercises	One Minute Pitch	Newspaper	Ball Game	Adding Value	
Opportunity Recognition	5			10		5	____ total /20 = ____
Perseverance		10			10		____ total /20 = ____
Creativity & Innovation				10		10	____ total /20 = ____
Social Skills	10		10				____ total /20 = ____

appendix 2

research materials

ARTICLES:

Distinguishing Economically from Legal Formal Firms – Targeting SA Townships

William Bradford

Entrepreneurship Training for Emerging SMEs in South Africa

Watson Ladzani, Jurie van Vuurenv

Informal Sector Activity as Entrepreneurship – Insights from South African Townships

Dr. Michael Morris, Dr. Leyland Pitt

Person-Entrepreneurship Fit – Why Some People are More Successful as Entrepreneurs than Others

Gideon Markman, Robert Baron

NOTE:

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Journal of Small Business Management 2007 45(1), pp. 94–115

*Distinguishing Economically from Legally Formal Firms: Targeting Business Support to Entrepreneurs in South Africa's Townships**

by William D. Bradford

Although the government of South Africa (SA) has formally adopted a policy of proactive support of entrepreneurship, providing business assistance to all of its entrepreneurs is beyond SA's financial and human resource capabilities. This study utilizes the results of an in-depth survey of entrepreneurs in SA's townships to find: (1) The business and owner traits that predict revenues and job creation among the township entrepreneurs, (2) The key issues that challenge township entrepreneurs; and (3) What the answers to these issues imply about the appropriate content and recipients of business assistance to township entrepreneurs. A distinction is helpful in framing this study's approach. In SA, registered (licensed) businesses are legally formal *firms. In contrast,* economically formal *firms have institutionalized processes that lead to success as a profit-making firm. We use this distinction in our analysis of the data and framing of the implications for business assistance strategy in SA.*

*The data utilized for this study came from a survey conducted by the Center for Innovation and Entrepreneurship (CIE) at the Graduate School of Business, University of Cape Town (UCT), South Africa. The survey was sponsored by Khula Enterprise Finance Limited and NTSIKA Enterprise Promotion Agency. I am grateful to the CIE, and particularly Jacqueline Kew, for providing the data and advice on the survey analysis. I am also grateful to the Global Business Programs at the University of Washington for its support of this research. Katherine Dewenter, Deborah Glassman, Larry Wall and Boyce Watkins made helpful comments on previous versions of this paper. Opinions expressed are my own, and not necessarily those of the foregoing persons and organizations. This research was motivated while serving as Gordon Fellow at the Graduate School of Business, UCT in 2001 and 2002.

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Introduction

It is estimated that two million people are engaged in some form of self-employment in South Africa (SA).[1] Although SA has formally adopted a policy of proactive support of entrepreneurship,[2] providing business assistance to all of its self-employed is beyond SA's financial and human resource capabilities. Given scarce resources, support must be targeted to those entrepreneurs that have greater potential to grow and to increase employment. The appropriate targeting of support services is facilitated through (1) categorizing entrepreneurs according to their capacity to grow their firms and create jobs, and (2) identifying the particular training and support requirements of each category. This study seeks to achieve these outcomes through analyzing data from an in-depth survey of 400 owners of businesses operating in SA's townships.

This paper augments previous research by Ladzani and van Vuuren (2002), and Morris and Pitt (1995). Lani and van Vuuren (2002) report survey responses of three firms that offer business training to perspective SA entrepreneurs, and use the responses to make recommendations on the training that should be offered to SA entrepreneurs. Here, we use the responses of existing township businesses to recommend the content of training experiences for township entrepreneurs. But more importantly, we provide a framework for selecting the businesses that will receive training, given that the government of SA cannot provide training to all of the potential and ongoing business owners in SA. Morris and Pitt (1995) surveyed 30 informal businesses in Khayelitsha, an SA township. They conclude that whereas most of the informal businesses do little more than subsist, a subgroup exists that is relatively dynamic; and the problem is how to systematically identify this group. We propose to systematically identify the dynamic subset by separating township firms into *economically formal* and *legally formal* firms, based upon the internal operating traits of the firms. We use this distinction to provide recommendations on prioritizing the township firms that will receive government assistance and the content of the assistance. The specific questions pursued here are

(1) What business and owner traits predict financial success and job creation among the township entrepreneurs?
(2) What are the key issues that challenge township entrepreneurs?
(3) What do the answers to these two questions imply about the content and recipients of the business assistance that maximizes the financial success and job creation of township entrepreneurs?

We find that two distinctions are helpful in our approach for targeting business services. In SA, *registered* businesses have informed the appropriate

[1]NTSIKA Enterprise Promotion Agency Department of Trade and Industry, South Africa (2003).

[2]The National Small Business Act of 1996 opened the way for SA's Department of Trade and Industry to address SMME development in SA. This act came about after the publication of the *White Paper on National Strategy for the Development and Promotion of Small Business in South Africa* (Department of Trade and Industry, Republic of South Africa 1995) and the first President's Conference on Small Business in March 1995. Some of the recommendations of the White Paper and the President's Conference concerning training were: Training courses should be modular and relevant to the needs of sectors and target groups; more attention should be given to the training of trainers, and training services should be coordinated better to avoid duplication.

government bodies of their existence and received licenses to operate, can be taxed and provided government services as legal entities. These firms have been the dominant focus of support programs created by the government of SA. These are *legally formal* firms, in the tradition of formal and informal firms in the economic development literature (for example, Dessy and Pallage 2003; Morris, Pitt, and Berthon 1996; Rauch 1991; Fall 1989). This paper proposes and utilizes another definition of formal business: An *economically formal* firm has institutionalized processes and procedures that lead to success as a profit-making firm. Attaining these milestones produces a perceptible jump in the likelihood of success, and these milestones can be reached whether or not a firm is legally formal. Distinguishing legally formal from economically formal firms is important when, for example, a government with limited resources wants to focus its efforts on firms with the greatest likelihood for increasing income and employment. This paper will use the results of the survey of businesses in SA to highlight this approach. We now summarize the results of the study in reference to the three questions set forth in the previous discussion:

Business and Owner Traits Associated with Financial Success and Job Creation

We conducted regression analyses to determine the ability of various business and owner traits to predict the revenues and the number of employees of the business. We find that revenues and employees are higher for firms owned by males, firms operating from a container (i.e., refurbished railroad cars) or a formal building, firms whose owners have vehicles, and firms whose owners hold credit cards. Being a registered business is also associated with higher revenues and higher employment levels. In implementing the concept of *economically formal* firms, we focus on financial skills related to keeping records; and the specific milestone is recording the firm's receipts and disbursements. After controlling for the impact of the other predictor variables, including being registered, we find that recording receipts and disbursements is associated with higher business revenues. Legally formal firms and economically formal firms overlap but are not equal sets: 7 percent of the firms are both registered and record receipts and disbursements ("record"), 5 percent are registered and do not record, 22 percent are unregistered and record, and 66 percent are neither registered nor record. The unregistered firms that do not record receipts and disbursements are at the lowest end of the spectrum in terms of revenues, employees, and education and business background of the owner; most of them became entrepreneurs because they "had no other choice," and would accept a job if one were offered. They do not have significant potential to generate growth.

Key Issues of Small, Medium, and Microenterprises in the Townships

The owners were asked which of 10 skills for which they would like to have additional training. The interviewers recorded the three most important skills as specified by the owners. For both registered and unregistered firms, and for firms that do and do not record receipts and disbursements, the highest priority was "How to keep financial records of my business." This implies that recording receipts and disbursements is perceived to be necessary but only a first step in getting maximum value from financial information. The second most important area was "How to market my product." The owners were also given a list of 15 business issues, and asked to quantify them for their businesses from 1 (no problem) to 5 (huge problem). The most dominant problem areas were (1) financing: "Lack of money to buy capital items" and "Lack of money for running costs," (2) marketing/promotion: "Amount of competition," and (3) "Transport costs." The registered firms consider competition more of a problem relative to financing than do unregistered firms; although both registered and unregistered firms rank both issues highly.

Implications for the Recipients and Content of Business Services Provided to Township Small, Medium, and Microenterprises in South Africa

With regard to the content of business training and services, all of the groups place high priority on (1) keeping and interpreting financial records, (2) marketing/promotion, and (3) obtaining financing. Of course, the support or training in these core areas must be arranged to fit the phases and circumstances of the township firms' owners. Specifying the appropriate recipients of the support is more difficult, given the limited resources. If the priority in SA's townships is growth through the legally formal business sector, then government support should be focused on registered firms. If the priority is growth through firms that have the best internal foundation for growth, then government support should focus on the economically formal firms: firms that have reached internal milestones in their development as viable entities. Here the support goes to both legally formal and legally informal firms who have attained a milestone for economic viability. Finally, poverty-alleviation projects and technical-skills training are more likely to benefit the owners of firms that are neither legally nor economically formal. Our results indicate that among township firms in SA, these can be described as unregistered firms that do not record receipts and disbursements.

The remainder of this paper is organized as follows: Part II provides the background and approach to the study, the data, and description of the firms. Part III analyzes the data, and discusses the relationship between legally formal and economically formal firms. Part IV discusses the results. Part V contains the conclusions.

Background, Data, and Description of the Firms

Background

The small, medium, and microenterprise (SMME) sector of SA is 98 percent of the firms in SA, contributes 37 percent of its gross domestic product and employs 68 percent of the country's labor force.[3] Given the important role of the SMME sector in SA, combined with the inability of the large business sector to absorb SA's growing labor market, the sustainability and effectiveness of the SMME sector has become a pressing concern for SA. The government of SA considers that developing the SMME sector will improve economic development through increases in per capita income and employment.[4] Although this relationship has been shown to exist for the United States (Robins et al. 2000), the impact of small business on economic development is in general an unsettled and complicated issue (Carree et al. 2002). Nevertheless, in this post-Apartheid period, targeted government funding and the effective development of the SMME sector have become paramount issues in SA. In 1994 the government of SA adopted the development of its SMME sector as a formal goal; with

[3]NTSIKA Enterprise Promotion Agency, Department of Trade South Africa (2003).
[4]The World Bank also supports the growth of the SMME sector in SA. See Lewis (2002).

the expected gains of improved living standards and employment of individuals who were denied access to opportunity under the Apartheid government. The Apartheid policies inhibited the access to business opportunities, and the ad hoc development of townships did not provide adequate infrastructure to encourage small business development. For example, the inability of blacks to own property meant that black business owners did not have assets available to use as collateral for loans; and the Group Areas Act limited markets available to black businesses and increased their cost of doing business (Kew and Macquet 2002, pp. 14–15).[5]

Thus, since 1994, much of the government of SA's interest on business development has focused on the barriers to business finance for previously disadvantaged businesspeople. Recently, the focus has included a greater emphasis on the other support structures required by the SMME sector and the necessity of directing initiatives toward skills development. According to the *Economic Policy* document, Provincial Government of Gauteng, Republic of South Africa (1997), government intervention will be required in the short and medium term for the SMME sector to achieve its economic development objectives (Kew and Macquet 2002, p. 15). Two national institutions were created: Khula, which facilitates access to finance; and the NTSIKA, which facilitates access to nonfinancial areas of SMME support, such as training (Mayer and Altman 2005). Although the SMME sector has been the focus of a number of research papers and featured highly in the government's deliberations and policy development, recent writers conclude that the resulting government programs are not sufficiently targeted and well-administered to support the SMMEs in SA (Rogerson 2004; Berry et al. 2002; Nieman 2001). No quantitative trade-off between business success and employment has been delineated. Despite the formal goal of assisting the development of the SMME sector, the government of SA's are limited. Thus the issue becomes choosing the subset of firms to which assistance will be focused, and the content of that assistance. This study approaches these issues via surveying SMMEs, and using the information to frame an appropriate approach to assisting these businesses.

Data

The sample population for township businesses is SMMEs operating within townships in SA. A township is defined as a traditional black area, within commuting distance of an urban metropolitan area, developed during the Apartheid. The sample was drawn from an established township in each of the following provinces: Eastern Cape, Gauteng, Kwa Zulu Natal, and Western Cape. The number of entrepreneurs interviewed in each province was based on entrepreneurial density statistics provided by Statistics South Africa (2001). A sample of 400 township entrepreneurs was drawn, and the survey was implemented after the use of a pilot study to test the survey questionnaire. The survey used face-to-face interviews with all of the respondents by trained interviewers who lived in the townships. The fieldwork was conducted in the townships between July and August 2002. In total, 40 fieldworkers were trained, and each completed 10 questionnaires. The identities of the survey respondents were kept confidential in order to reduce their incentive to be excluded from the study. The information gathered about the entrepreneurs covers a wide array of topics, including demographic and other background information on the entre-

[5]Also, see Department of Trade and Industry, Republic of South Africa (1995).

preneur, the employment, revenue and type of business, issues in starting and operating the firm, the perceived future of the firm, and assistance needed to grow the firm. Table 1 provides a statistical profile of the 400 firms in the sample, using responses from the questionnaire and observations of the interviewers.

Description of the Firms

Table 1 shows that the gender of the owners is split between 54 percent male and 46 percent female. The average age of the owners is 38 years. But youth is more dominant: 48 percent are less than 35, 39 percent are between 35 and 54, and 13 percent are greater than 54 years of age. In terms of education (measured in number of years in school), most of the owners have nine or more years of school, but 20 percent and 27 percent have zero—five and six—eight years of school, respectively. Forty percent of the owners have close relatives who are business owners, and 29 percent have started at least one other business. Thirty-two percent of the owners have offered a new product or service within the last three months. Twenty-four percent of the owners speak English poorly or not at all. In terms of line of business activity, the businesses are dominated by retail and consumer products/services: Seventy-five percent are retail, hotel, or restaurant; and 28 percent are in consumer services. Twelve percent of the businesses own a vehicle, and 15 percent have a credit card. Less than half—46 percent, of the businesses keep records of business transactions. The language in which they would prefer training reflects the diversity in background: 49 percent prefer English, 18 percent prefer Xhosa, and 27 percent prefer Zulu.

Thus, if one can characterize the businesses, most of them are retail, hotel, or restaurant businesses, operating at home or a friend's home, in a location that is provided infrastructural services. Despite these generalities, there is a wide mix of businesses represented in the sample: 75 of the 400 businesses operate as street traders or in a craft market. Eighty businesses operate in areas without infrastructural services.

Table 1
Description of Township Businesses

Description	Percent
Gender = Male (percent)	54.4
Age, Mean (Years)	38.0
Standard Deviation	11.5
Skewness	1.0
Age (years) percent:	
20–35	47.7
36–50	39.4
51+	12.9
Read English—Yes (percent)	84.6
Level of Spoken English (percent)	
Good	41.3
Fair	34.5
Poor	16.3
Cannot Speak	8.0
Write English—Yes (percent)	81.1

Table 1
Continued

Description	Percent
Education Level (Years of School Completed, percent)	
0–5	19.5
6–8	27.8
9+	52.7
Reason for Business Entry (percent):	
Opportunity	40.3
No Other Choice	59.7
Family Business Background—Yes (percent)	39.7
Started Another Business—Yes (percent)	29.1
Business Category (percent)	
Agriculture, Forestry, Hunting, Fishing	0.3
Mining, Construction	2.7
Manufacturing	1.3
Transport, Communications, Utilities	4.0
Wholesale, Motor Vehicle Sale, Repair	1.0
Retail, Hotel, Restaurant	58.9
Finance, Insurance, Real Estate	0.0
Business Services	0.5
Health, Education, Social Services	3.2
Consumer Services	28.2
Accept Job If Offered—Yes (percent)	58.1
Where Business Operates (percent)	
Street Trader or Craft Market	19.0
At Home or Friend's Home	62.4
Container	7.6
Formal Building	4.6
Other	6.4
Local Environment (percent)	
Formal with Services	41.5
Informal with Services	38.6
Informal without Services	19.9
Registered Business—Yes (percent)	12.2
Age of Business—Years Mean	4.8
Standard Deviation	4.37
Skewness	1.74
Keep Records of Business Transactions—Yes (percent)	45.8
If Keep Records of Bus. Trans., What Do You Keep Record of?	
Retain Paperwork on (percent):	
Cash Receipts and Disbursements	62.0
How Much Sold Each Month	48.4
Who Debtors are	34.2
Who Creditors are	9.8
Bank Deposits or Withdrawal Slips	17.4

Table 1
Continued

Description	Percent
Record Figures on (percent):	
Cash Receipts and Disbursements	63.0
How Much Sold Each Month	57.6
Who Debtors are	35.9
Who Creditors are	12.5
Bank Deposits or Withdrawal Slips	17.4
Entrepreneur Owns: (percent)	
A House/Fixed Property	49.5
An Insurance Policy	14.9
A Vehicle	19.4
Paid Up Furniture	41.3
Have a Bank Account—Yes (percent)	65.4
If Bank Account-percent with	
Savings Account	92.8
Checking Account	7.6
Credit Card	6.8
Home Loan	5.7
Access in Business or Home to: (percent)	
Computer	7.2
Internet	2.2
Email	2.5
Fax Machine	4.5
Land Line-Telkom	38.1
Cell Phone	47.0
How Many Paid Employees:	
Permanent Mean	1.2
Standard Deviation	9.2
Skewness	18.4
Nonpermanent Mean	0.4
Standard Deviation	1.24
Skewness	6.7
Revenues Last Week (Rands) Mean	854.2
Standard Deviation	1480.48
Skewness	4.3
If Attended Training Course, Preferred Teaching Language (percent)	
English	48.8
Xhosa	17.5
Zulu	27.1
Other	6.6

Analysis of the Data on Township Firms

Predictors of Business Viability

Our goal is to determine the set of businesses toward which the limited government resources should be focused. These businesses should have the potential for survival and growth. We use two dependent variables—the revenues and employees reported by the owners—as measures of business viability. We begin by determining the owner/business traits that are associated with business viability. Our predictive model can be specified as:

$$\text{Revenues or Employees} = f(T_1, T_2 \ldots T_n) \quad (1)$$

where the T_i represents trait i of the owner or business.[6] We predict revenues or employees as a function of the following variables: owner's age; education; gender; family business background; business ownership experience; vehicle ownership; line of product: consumer services, retail business, or other; credit card ownership; vehicle ownership; local environment; and operating base of the business. The implicit null hypotheses are that these variables—together and separately—have no predictive content for the revenues or employees of the businesses in the sample. We use the standard *F*- and *t*-ratios to test these hypotheses. We note that our results may not be entirely predictive in a time-series sense, but are predictive in the sense of helping those with resources determine where their investments may have the greatest immediate impact.

Table 2 shows the results of the ordinary least squares (OLS) regressions of the basic model predicting revenues (models 1–5) and employees (models 6–10). The *F*-ratio for the basic regressions predicting revenues and employees are statistically significant at the 0.01 level, and the adjusted R^2 s are 0.31 and 0.24, respectively. Based upon the statistical significance of the *t*-statistic (at least at the 0.1 level), we conclude that male, owns vehicle, owns credit card, and located in a container or formal building are positively associated with revenues and employees. We investigated the last three variables to determine whether they are determined by revenues and employees, rather than predictors of revenues and employees. Our evidence, based upon how these variables are distributed by age of the firm, is that they are predictors of, rather than predicted by, revenues and employees.[7] In the

[6]We use revenues instead of profits as a measure of financial performance. The disadvantage of revenues is that it ignores costs. But in SA as in many countries, business profits often do not accurately measure the economic strength or impact of a business. Formal SMMEs in particular manipulate expenses to include nonbusiness (personal) expenditures, and to minimize business income taxes. Informal SMMEs (who are often not on the tax rolls) often add personal expenditures to expenses when they estimated profits. We found that there was ambiguity among firms in defining profits, but very little in defining revenues. For these reasons we use revenues in this study.

[7]If revenues, for example, determine credit card, vehicle, and formal building location, then the age of the business should be correlated with these three variables. That is, younger (age <1 year) businesses will not have time to show the business revenues that affect a lender's willingness to lend or have accumulated sufficient revenues to purchase a vehicle; but older businesses will have accumulated these revenues. We found that the age of the business was not correlated with these three variables; that is, the fraction of young businesses with "yes" for these variables was approximately the same as the average for all of the businesses. This indicates that these variables are not a function of revenues.

basic model for revenues (model 1), high education is also positively associated with revenues and an age of less than 35 is negatively associated with revenues; but these traits are not statistically significant in predicting the number of employees. In the basic model for employees (model 6), the variable indicating operating as a street trader or in a craft market is negatively associated with the number of employees, but this variable is not statistically significant in the regression predicting revenues.

We next determine to what extent we can categorize the growth potential of these businesses. Which businesses appear to have growth potential? In order to pursue this question, we examine the relationship between the two dependent variables and alternate independent variables describing the businesses. If the regression coefficient is positive, we interpret the independent variable as being associated with positive revenues and employees, and thus growth potential for the business. The first variable of interest is REG, indicating a legally formal business; that is, it has registered with the appropriate local and regional government bodies in SA. It can be taxed and regulated; and on the positive side, it is eligible for government subsidies and programs that seek to enhance the viability of these businesses. Models 2 and 7 in Table 2 include REG as an independent variable. Model 2 reports that REG is positive and statistically significant in predicting business revenues. Thus, after controlling for the effect of the other variables, being a formal business defined along legal terms is associated with an additional 968 Rands in revenues and 0.75 full-time equivalent (FTE) employees over unregistered businesses.

Another aspect of business formalization is the initiation of business processes that are necessary for the survival and success of the business. These are internal processes that are the foundation for the firm's economic viability. This paper will focus on financial skills related to keeping records. Businesses that do not record and analyze receipts and disbursements are more likely to price their products or services incorrectly; and will not be able to identify trends in their business. They would also have less control over their receivables, and have insufficient information to obtain financing from institutional lenders such as banks. Schwenk and Schrader (1993) found a positive relationship between business planning and success. If businesses do not record their financial outcomes, then they have insufficient bases by which to plan.

We tested the predictive content of each of the variables listed under "Keep records of business transactions" in Table 1. It was found that of the indicators of record keeping, "Record figures on cash receipts and disbursements" is the most statistically significant in the regression predicting revenues. None of the measures of record keeping was statistically significant in predicting employees. Table 2 (model 2) shows that REC, indicating that the business records receipts and disbursements, is positively associated with revenues, and this variable is statistically significant. The revenues of firms that record cash receipts and disbursements are 494 Rands higher than those firms that do not, after controlling for the effect of the other owner/firm traits. However, model 7 in Table 2 shows that REC is not statistically significant in predicting the number of employees. We tested if the size of the coefficient for REG (968 Rands) was greater than the coefficient for REC in model 3. We cannot reject the null hypothesis of equality of the two coefficients at the 0.10 level or less (p = .124).

Because both REG and REC have a positive impact on revenues, how influential is the combination of registration and recording receipts and disbursements, relative to these traits taken separately?

Table 2
Results of OLS Regressions Predicting Revenues and Employees[a]

	Dependent Variable: Revenues (Rands)									
	(1)		(2)		(3)		(4)		(5)	
	Coef.	*t*-val	Coef.	*t*-val	Coef.	*t*-val	Coef.	*t*-val	Coef.	*t*-val
Constant	−128.6	−0.6	−247.9	−1.1	−132.5	−0.6	−120.5	−0.5	−21.4	−0.1
Age (Years)										
<35	−344.1	−2.2**	−261.8	*	−247.2	−1.7*	−342.4	−2.2**	−353.7	−2.3**
>51	256.6	1.1	253.1	1.1	191.2	0.9	244.9	1.0	248.4	1.1
Educ. (Years)										
<6	133.2	0.6	144.7	0.7	116.3	0.6	139.5	0.7	107.5	0.5
9+	501.4	3.0***	377.7	2.3**	377.7	2.4**	514.9	3.0***	499.8	3.0***
Gender = Male	402.6	2.7***	356.7	2.5**	311.2	2.2**	399.3	2.7***	406.5	2.7***
Fam. Bus. Background	189.4	1.2	127.9	0.9	100.6	0.7	194.8	1.3	188.8	1.2
Started Another Bus.	220.4	1.4	295.4	1.9*	329.7	2.2**	228.3	1.4	218.1	1.4
Owns Vehicle	908.8	4.6***	709.6	3.6***	713.1	3.8***	913.0	4.6***	937.9	4.7***
Retail Business	308.0	1.9**	346.2	2.2**	332.9	2.2**	315.9	2.0**	294.5	1.8*
Not Retail or Consumer Bus.	181.6	0.7	149.2	0.6	220.4	0.8	186.4	0.7	127.5	0.5
Has Credit Card	1,842.5	5.0***	1,667.2	4.7***	1,526.5	4.4***	1,861.0	5.0***	1,815.3	4.9***
Business Operates in:										
Street Trader/Craft Market	−172.5	−0.9	−125.9	−0.7	−173.1	−1.0	−175.0	−0.9	−178.1	−0.9
Container	501.6	1.8*	241.9	0.9	171.4	0.6	481.4	1.7*	482.5	1.7*
Formal Building	1,359.0	3.5***	611.6	1.5	−54.5	−0.1	1,332.1	3.4*	1,318.3	3.4***
Other	80.8	0.3	−98.9	−0.3	−124.7	−0.4	77.5	0.2	99.4	0.3
Registered Business			967.7	3.8***						
Records Receipts and Disburs.			493.8	3.1***						
REG/REC[a]					2,425.2	6.8***				
REG/NOREC[a]					−1.9	0.0				
UNREG/REC[a]					272.9	1.7*				
UNREG/NOREC[a]										
Wants to Become Registered							−102.5	−0.6		
Wants Record-Keeping Skills									−192.9	−1.4
Adjusted R^2	0.31		0.35		0.39		0.31		0.31	
F-statistic		10.8***		11.7***		12.9***		10***		10.3***

	Dependent Variable: Employees									
	(6)		(7)		(8)		(9)		(10)	
	Coef.	*t*-val	Coef.	*t*-val	Coef.	*t*-val	Coef.	*t*-val	Coef.	*t*-val
Constant	0.25	1.1	0.22	1.0	0.24	1.1	0.24	1.1	0.28	1.2
Age (Years):										
<35	−0.07	−0.5	−0.04	−0.3	−0.04	−0.3	−0.07	−0.5	−0.07	−0.5
>51	0.01	0.0	0.01	0.0	0.00	0.0	0.03	0.1	0.00	0.0
Educ. (Years)										
<6	−0.04	−0.2	−0.04	−0.2	−0.04	−0.2	−0.05	−0.3	−0.05	−0.2
9+	−0.03	−0.2	−0.09	−0.5	−0.09	−0.5	−0.05	−0.3	−0.03	−0.2
Gender = Male	0.53	3.7***	0.51	3.6***	0.51	3.5***	0.54	3.7***	0.54	3.7***
Fam. Bus. Background	0.35	2.3**	0.33	2.2**	0.32	2.1**	0.34	2.3**	0.35	2.3**
Started Another Bus.	0.07	0.4	0.10	0.7	0.11	0.7	0.05	0.3	0.07	0.4
Owns Vehicle	0.87	4.5***	0.75	3.9***	0.75	3.9***	0.86	4.5***	0.88	4.5***
Retail Business	−0.04	−0.3	0.00	0.0	−0.01	0.0	−0.05	−0.3	−0.04	−0.3
Not Retail or Consumer Bus.	−0.04	−0.2	−0.07	−0.3	−0.06	−0.2	−0.05	−0.2	−0.06	−0.2
Has Credit Card	0.75	2.1**	0.63	1.8*	0.61	1.7*	0.72	2.0**	0.74	2.1**
Business Operates in:										
Street Trader/Craft Market	−0.43	−2.4**	−0.41	−2.3**	−0.42	−2.3**	−0.43	−2.3**	−0.44	−2.4**
Container	0.50	1.8*	0.38	1.4	0.37	1.3	0.53	1.9*	0.49	1.8*
Formal Building	1.61	4.3***	1.20	3.0***	1.09	2.5**	1.66	4.4***	1.60	4.2***
Other	0.24	0.8	0.13	0.4	0.13	0.4	0.24	0.8	0.24	0.8
Registered Business			0.75	2.9***						
Records Receipts and Disburs.			0.06	0.4						
REG/REC[b]					0.97	2.6***				
REG/NOREC[b]					0.59	1.7*				
UNREG/REC[b]					0.02	0.1				
UNREG/NOREC[b]										
Wants to Become Registered							0.17	1.0		
Wants Record-Keeping Skills									−0.05	−0.4
Adjusted R^2	0.24		0.26		0.26		0.24		0.24	
F-statistic		8.1***		7.8***		7.4***		7.6***		7.6***

[a]N = 400.
[b]REG, registered firms; REC, firms recording receipts and disbursements; UNREG, unregistered firms; NOREC, firms that do not record receipts and disbursements.
* = 0.10.
** = 0.05.
*** = 0.01.
Source: Authors' calculations and survey results.

Model 3 responds to this question by reflecting that a firm may be in one of four categories: Registered/record (REG/REC), registered/does not record (REG/NOREC), unregistered/record (UNREG/REC), and unregistered does not record (UNREG/NOREC). Using UNREG/NOREC as the comparison group, model 3 considers the incremental association of the other three categories with revenues. The coefficients of REG/REC and UNREG/REC are positive and statistically significant, whereas the REG/NOREC coefficient is close to zero and not statistically significant. Firms that are both registered and record receipts and disbursements display higher revenues associated with this interaction. But firms that are registered only (and do not record receipts and disbursements) have no difference in revenues compared to the UNREG/NOREC group. So registration, per se, is not the key to higher revenues. Firms that record receipts and disbursements only (and are unregistered) do achieve higher revenues than the UNREG/NOREC group, implying that recording receipts and disbursements has greater direct association with revenues than being registered. We also tested whether the coefficient for REG/REC is larger than the coefficient for UNREG/REC in model 4. We reject the null hypothesis of equality of the two coefficients at a level less than 0.01 ($p = .0000$). The revenues associated with REG/REC firms are larger than those of the UNREG/REC firms, after the effect of the other variables have been controlled for.

If registered businesses are associated with greater viability, then it is of interest to examine the viability of those owners who want to become registered, those businesses defined as WANTREG. The owners were given 10 areas of training, and asked to specify the three most important to them. If the owner ranked "How to register my business" among the top two of the 10 areas listed, the business was placed into the WANTREG category. To what extent does being in the WANTREG category have a positive association with revenues and employees? Models 4 and 9 in Table 2 report that WANTREG is not statistically significant in predicting revenues and employees, when we control for the impact of the other variables. As a group, the businesses with registration as a high priority do not appear to have any growth potential or greater business viability compared to the other businesses.

We can also examine the association between the indicator for firms whose owners place high priority on learning how to keep financial records and business revenues and employees. If the owner ranked "How to keep financial records of my business" among the top two of the 10 desired skills listed, the business was placed into the "wants to record" (WANTREC) category. Models 5 and 10 in Table 2 report that WANTREC is not statistically significant in predicting higher business revenues or more employees. Thus, consistent with the finding for WANTREG, WANTREC firms do not achieve higher revenues or employees when the effects of the other variables in the regression are considered. Nevertheless, we find that the act of recording the receipts and disbursements of the firm is associated with higher revenues for the firm, an economic benefit.

Economically Formal and Legally Formal Firms

To what extent do economically formal businesses—those that record receipts and disbursements—tend to be registered businesses, that is, legally formal businesses? Table 3 shows that REG firms and REC firms are not equal sets, but most registered firms record receipts and disbursements. Though 28 of the 49 (57 percent) of the registered firms are REC, only 90 of the 373 (24 percent) of the unregistered firms are REC. The association between REC and REG is statistically significant. However,

Table 3
Traits of Registered Firms and Firms That Record Receipts and Disbursements

	Yes	No	Total		Yes	No	Total
REG				**REC**[a]			
Number	49	353	402	Number	118	284	402
(percent)	12.2	87.8	100.0	(percent)	29.4	70.6	100.0
REG/REC				**UNREG/NOREC**[a]			
Number	28	374	402	Number	263	109	402
(percent)	7.0	93.0	100.0	(percent)	65.4	27.1	100.0

	REG/REC[a]	REG/ NOREC[a]	UNREG/ REC[a]	UNREG/ NOREC[a]
Read English—Yes (percent)	100.0	90.5	88.9	81.0
Write English—Yes (percent)	89.3	85.7	83.3	79.1
Good Spoken English—Yes (percent)	71.4	61.9	38.2	37.4
Male (percent)	75.0	65.0	52.9	51.9
Family Bus. Background (percent)	46.4	45.0	42.2	37.6
Started Another Business (percent)	25.0	28.6	30.0	29.3
Prefer to be Taught in (percent):				
English	78.6	82.4	56.8	40.2
Xhosa	7.1	5.9	12.3	21.3
Zulu	14.3	5.9	24.7	31.0
Other	0.0	5.9	6.2	7.5
Age (percent):				
20–35	39.3	66.7	42.7	48.8
36–50	50.0	28.6	46.1	36.8
51+	10.7	4.8	11.2	14.3
Where Business Operates (percent):				
Street Trader or Craft Market	3.6	0.0	14.4	23.2
At Home or Friend's Home	35.7	61.9	64.4	65.8
Container	21.4	9.5	11.1	4.6
Formal Building	32.1	14.3	2.2	1.5
Other	7.1	14.3	7.8	4.9
Educ.Level, Years (percent):				
0–5	7.4	9.5	14.0	23.5
6–8	11.1	14.3	23.3	32.3
9+	81.5	76.2	62.8	44.2
Local Environment (percent)				
Formal with Services	75.0	66.7	37.8	37.3
Informal with Services	25.0	23.8	46.7	38.4
Informal without Services	0.0	9.5	15.6	24.3

Table 3
Continued

	REG/REC[a]	REG/NOREC[a]	UNREG/REC[a]	UNREG/NOREC[a]
Line of Business: (percent)				
Retail, Hotel, Restaurant	42.9	33.3	63.3	60.8
Consumer Services	35.7	42.9	27.8	31.2
Other Lines of Business	21.4	23.8	8.9	8.0
Accept Job if Offered (percent)	46.2	28.6	53.9	63.1
Age of Bus., Years	5.614	4.638	4.734	4.678
Standard Deviation	4.399	3.839	4.112	4.508
Full-Time Equiv. Employees	8.929	3.833	0.828	0.568
Standard Deviation	33.584	7.914	1.384	1.120
Weekly Revenues, Rands	3,932.90	900.00	1,005.62	547.20
Standard Deviation	3,474.61	1,091.91	1,198.60	944.61
Number of Firms in Category	28	21	90	263

[a]REG, registered firms; REC, firms recording receipts and disbursements; UNREG, unregistered firms; NOREC, firms that do not record receipts and disbursements.

because only 12 percent of the firms are registered, most—80 percent—of the REC firms are unregistered.

Table 3 compares various traits of REG firms separated into REC and NOREC groups, and REC firms grouped into REG and UNREG. The firms in the REG/REC category have the highest mean revenues and employees, the highest fraction that operate out of formal structures (containers or formal buildings), the highest percentage that can read English (100 percent), and the highest education levels. This group also has the highest fraction of male owners, the lowest fraction that operate out of homes, and none in this group operates in an informal community without services. The REG/NOREC firms compared to UNREG/REC shows interesting contrasts. The average revenues of UNREG/REC firms are higher, but the average number of employees is lower than those of the REG/NOREC firms. The gender mix is different: 62 percent of the REG/NOREC firms are owned by males, whereas only 38 percent of the UNREG/REC firms are owned by males. Thus, a woman owns the typical unregistered firm that records receipts and disbursements.

The unregistered firms that do not record receipts and disbursements are at the lowest end of the spectrum in terms of revenues, employees, and education and business background of the owner; most of them became entrepreneurs because they "had no other choice," and would accept a job if one were offered. We conclude that they do not have significant potential to generate growth.

One can examine how being registered is associated with recording receipts and disbursements and various other traits by using logistic regressions. Table 4 shows logistic regressions that predict (1) if a business is registered, and (2) if the business records cash receipts and disbursements, given the effects of predictor variables. The predictor variables include: Read English, Write English, Level of spoken English, Gender, Family business background, Started a

Table 4
Logistic Models Predicting Registration and Recording Receipts and Disbursements

	Registered		Records Receipts and Disbursements	
	Odds Ratio	*z*-Value	Odds Ratio	*z*-Value
Read English	4.2300	1.1	1.6195	0.7
Write English	0.0884	−2.2**	0.4541	−1.2
Good Spoken English	1.1057	0.2	0.5804	−1.7*
Male	1.6882	1.1	1.3237	1.0
Family Bus. Background	1.5218	0.9	1.1708	0.5
Started Another Business	0.4733	−1.4	0.6652	−1.3
Prefer to be Taught in:				
Xhosa	0.9675	0.0	0.6846	−0.9
Zulu	0.5176	−1.0	0.7696	−0.7
Other	0.4374	−0.7	0.4511	−1.1
Age:				
20–35	0.6434	−0.9	0.6359	−1.5
51+	0.7959	−0.3	0.9671	−0.1
Where Business Operates:				
Street Trader or Craft Market	0.1625	−1.5	0.6077	−1.2
Container	3.0732	1.7*	2.7300	2.0**
Formal Building	7.7108	2.8***	5.9308	2.4**
Other	4.1831	1.9*	1.3902	0.6
Educ. Level, Years:				
0–5	0.3251	−1.1	0.7287	−0.6
9+	2.1576	1.3	2.2206	2.2**
Informal with Services	0.6934	−0.8	1.2406	0.7
Informal without Services	0.0926	−2.1**	0.6756	−0.9
Retail, Hotel, Restaurant	0.4006	−1.9*	1.2822	0.8
Other Lines of Business	2.2527	1.2	0.8537	−0.3
Age of Business, Years	1.0067	0.1	1.0029	0.1
Accept Job if Offered	0.3656	−2.2**	0.6511	−1.5
Records Receipts and Disburse.	1.9045	1.4		
Registered			2.0296	1.6
N	335		335	
Pseudo R^2	0.3412		0.1342	
Log Likelihood		−79.4***		−173.6***

*p = .10.
**p = .05.
***p = 0.0126.

business before, Language of teaching preference, Owner age, Operating platform, Operating environment, Business age, Line of business, and Offered job.

Model 1 predicts that REG and positive regression coefficients are associated with higher odds of being a registered business. The results show that when the effects of the other variables are considered, REC is positive but not statistically significant in predicting whether a firm will be registered (p = .158). Positively associated with registration are location in containers and location in formal buildings. Negatively associated with registration are English writing ability, location in an informal area without services, retail lines of business, and accepting a job if offered. The age of the business is not statistically significant in predicting registration. Model 2 predicts whether a firm records cash receipts and disbursements, and positive coefficients are associated with higher odds of being a business that records cash receipts and disbursements. This regression shows that being registered is positive but not a statistically significant predictor for REC after controlling for the effect of the other variables (p = .104). Positively associated with REC are being located in a container and in a formal building, and the highest education level. Negatively associated with REC is good spoken English. Age is not statistically significant in predicting whether a firm will record cash receipts or disbursements. In addition, whereas the regression for REG has a pseudo R^2 of 0.34, the regression for REC has a pseudo R^2 of 0.13. The registered business status is more predictable (using the variables considered here) than the status of recording cash receipts and disbursements. We cannot explain the negative association between English fluency and REG and REC statuses; and this is an area for further study. REG and REC statuses do appear to be associated through the type of location: both are positively associated with location in a container or formal building. But REG and REC are not bound together: A legally formal business does not predict an economically formal business.

Perceived Needs of the Businesses

In order to maximize the effectiveness of resources used to assist the development of township businesses, it is important to understand the needs of these businesses (Brink 1999). As mentioned in the previous discussion, the owners were asked which of a list of 10 skills they would most like to be taught. The interviewer recorded the three most important skills as specified by the business owner. Table 5 shows the results of the responses for the businesses overall, and for businesses categorized by REG and REC. The table shows the fraction of each group for which a particular skill was among the top three of the 10 specified. For each group, the most desired skill is "How to keep financial records of my business." This skill is the most desired even for both registered and unregistered REC firms. Thus REC firms still anticipate that they are not able to get a sufficient value from their use of their financial information. The second most important area is "How to market my product." These two areas stand out from the eight others as areas of need. "Communication skills" rank next, although at most a third of the respondents ranked this in the top three priorities. This ranking is also consistent across the subgroups of firms.

The owners were also asked to indicate how much of a problem certain issues are to the business. The 15 issues range from theft by staff to the unavailability of water. The entire list is shown in Table 6. The owners were asked to rate each issue from 1 to 5, with 1 being not a problem facing the business, and 5 being a huge problem. Table 6 shows the mean and standard deviation of the score for each issue for all owners, and for the owners categorized into four groups by

Table 5
Response to "What Skills Would You Most Like to be Taught?" Township Businesses

	All Owners	REG/REC[a]	REG/NOREC[a]	UNREG/REC[a]	UNREG/NOREC[a]
Numbers = Proportions					
How to Read Contracts	0.1816	0.2143	0.0952	0.1889	0.1825
How to Fill in Business Related Forms	0.1443	0.1071	0.0476	0.1333	0.1597
How to Register My Business	0.3035	0.1786	0.1905	0.3333	0.3156
How to Speak English Better	0.2786	0.1071	0.2381	0.2222	0.3194
How to Keep Financial Records of My Business	0.5522	0.5357	0.6667	0.5556	0.5437
How to Talk to Banks	0.1891	0.2500	0.1429	0.2333	0.1711
What Are My Rights	0.2562	0.4286	0.3810	0.2222	0.2395
How to Market My Product	0.5100	0.4643	0.3810	0.4556	0.5437
Communication Skills	0.3806	0.4643	0.4286	0.4111	0.3574
Other	0.0846	0.1429	0.0000	0.1000	0.0798
N	402	28	21	90	263

[a]REG, registered firms; REC, firms recording receipts and disbursements; UNREG, unregistered firms; NOREC, firms that do not record receipts and disbursements.

Table 6
Responses to "Please Indicate How Much of a Problem This Is for Your Business" Township Businesses[a]

	All Firms			REG/REC[b]			REG/NOREC[b]			UNREG/REC[b]			UNREG/NOREC[b]		
	Obs	Mean	S.D.	Obs	Mean	S.D.	Obs	Mean	S.D.	Obs	Mean	S.D.	Obs	Mean	S.D.
Theft by Staff	373	1.68	1.36	27	2.48	1.83	20	1.95	1.39	85	1.76	1.41	241	1.54	1.25
Theft by Force	374	2.57	1.72	27	3.04	1.76	21	2.52	1.78	84	2.67	1.77	242	2.48	1.70
Weather	388	2.96	1.71	28	2.86	1.63	21	2.81	1.57	88	2.94	1.72	251	2.99	1.74
Lack of Money for Running Costs	381	3.80	1.48	26	2.77	1.73	20	3.20	1.44	83	3.40	1.62	252	4.09	1.32
Lack of Money to Buy Capital Items	377	3.81	1.45	26	3.08	1.72	21	3.38	1.60	85	3.66	1.48	245	3.97	1.37
Unskilled Employees	364	1.94	1.41	27	2.44	1.58	19	2.79	1.81	80	1.89	1.41	238	1.83	1.32
Amount of Competition	376	3.06	1.52	27	3.15	1.68	21	2.95	1.53	86	3.29	1.54	242	2.98	1.49
Time Taken to Train Employees	357	1.75	1.18	27	2.37	1.33	18	2.22	1.40	80	1.80	1.24	232	1.62	1.09
Transport Costs	375	3.29	1.52	27	3.15	1.46	19	2.79	1.58	84	3.32	1.56	245	3.34	1.51
Lack of Own Business-Related Skills	369	2.75	1.50	27	2.63	1.45	19	2.11	1.63	82	2.71	1.49	241	2.83	1.50
Labor Laws	369	2.15	1.48	27	2.56	1.53	19	2.47	1.50	82	2.29	1.61	241	2.03	1.42
Restrictions on Where I Can Trade	365	2.15	1.48	26	2.73	1.76	19	1.84	1.17	79	2.19	1.56	241	2.09	1.43
Difficulty in Getting Inputs	365	2.90	1.46	26	2.77	1.56	19	2.74	1.41	82	2.80	1.41	238	2.95	1.48
Unavailability of Electricity	380	2.54	1.75	27	2.41	1.76	20	1.95	1.28	87	2.64	1.84	246	2.56	1.75
Unavailability of Water	378	2.47	1.70	28	2.18	1.59	19	1.95	1.22	84	2.49	1.75	247	2.53	1.73

[a]Issues were rated 1,2,3,4, or 5, with 1 indicating no problem and 5 a huge problem.
[b]REG, registered firms; REC, firms recording receipts and disbursements; UNREG, unregistered firms; NOREC, firms that do not record receipts and disbursements.

REG and REC. The most serious problem—in terms of highest score—is accessing funds for the purchase of capital items. This is a consistent problem across the four groups, although for registered firms financing is not the highest scoring problem. Accessing funds for running costs, transport costs, and competition are also identified as relatively high-ranking problems to the owners. To the extent that the scores are gauged similarly across owners, we can interpret the scores in both relative and absolute terms. Thus, the financing problem for REG/REC firms ranks high for those owners, but in absolute terms its score of 3.08 implies that it is not as much of a problem as it is for UNREG/NOREC firms whose mean score for this issue is 3.97. We conducted a *t*-test and the difference in the score is statistically significant at the 0.01 level. We speculate that the difference reflects that the financing problem of REG/REC firms (when it occurs) deals with financing the next stage of growth, whereas UNREG/NOREC firms see the problem of financing as a more onerous survival issue. The REG/NOREC and UNREG/REC also rank financing as their most serious problem, but in absolute terms lower than the UNREG/NOREC firms, and the differences are statistically significant.

Competition is the highest-ranking problem for the REG/REC firms; and is ranked 3, 4, and 5 for the REG/NOREC, UNREG/REC and UNREG/NOREC firms, respectively. Registered firms are further along in their development than UNREG/NOREC firms. Financing is less of an issue (but still one of top issues) for registered firms, and the key issue in this phase is how to distinguish the firm from its competitors. The other two groups lie inside the development continuum between REC and UNREG/NOREC firms.

These results suggest that registered and REC owners will find training programs in keeping and interpreting financial records, marketing/promotional strategy, and obtaining financing valuable. The training should match the stage of business: Registered/REC owners will likely need the tools to decide on what the next stage of expansion should be, and support for the financing consistent with that next stage of expansion. The other groups will need more basic levels of training and support, but in these same topic areas. We anticipate that these other two sets of firms include a wide array of sophistication, but they are above the survival and basic-needs level. UNREG/NOREC firms include those that are in the survival and basic subsistence stages. Their needs are at the basic level. Limited resources would lead to a focus on the other three groups.

Conclusions

In order to develop an effective SMME policy it is important to understand the constraints and issues facing firms in this sector. Similar to small businesses in more developed countries such as the United States. and elsewhere, small businesses in SA value skills related to keeping and interpreting financial records, product promotion, and obtaining financing. The set of SMMEs that receive government business assistance should depend on the resources available and the degree to which public policy places priority on legally formal over legally informal businesses. Registered (legally formal) firms in SA contribute taxes and fees, and agree to operate within regulatory requirements. Government services that assist SMMEs are typically more available to registered firms than to unregistered firms. But supporting only registered businesses will forfeit the potential growth in income and employment from supporting viable unregistered firms. The government of SA can provide assistance to legally informal/economically formal firms in a way that they are motivated to become legally formal, and this may be more productive (in terms of impact on economic development) than providing assistance to legally formal/economically informal firms, with the hope that these firms will become economically formal. In addition, to the extent that the diversity of businesses has more value and registration has less value in terms of public policy, legally informal/economically formal firms offer a fertile set of businesses to further develop SA's SMME sector.

Our results indicate that supporting unregistered firms that record receipts and disbursements in business assistance programs will reach more women-owned firms, more firms in retail- and consumer-oriented lines of business, more firms in areas where the infrastructure is less well developed (in terms of electricity and water), and more firms of owners whose language of choice is Zulu or Xhosa instead of English. These aspects are important in that the government of SA's goals in SMME development—as set forth in the White Paper—include (1) addressing the past disempowerment of black entrepreneurs in the economy, and (2) actively supporting the advancement of women in all business sectors. The former goal supports economic development in the underdeveloped areas; and these areas contain a relatively large proportion of persons whose first language is not English. The latter goal is consistent with ongoing government efforts to include women business owners in the growth of SMMEs in SA (Schindehutte, Morris, and Brennan 2003; Valodia 2001; Ahwireng-Obeng 1993). But with limited resources, the government of SA cannot concurrently attain all of its objectives; thus trade-offs and priorities must be specified. We have presented evidence on both the trade-offs that exist between assisting township businesses based on legal status versus economic status; and priorities in terms of key issues and skills needed for township business owners. Our framework can be augmented by further work on formulating the appropriate training experiences for township entrepreneurs, and more detail in identifying appropriate milestones for specifying economically formal firms. These are rich and important topics for research and timely implementation in SA and other developing economies.

References

Ahwireng-Obeng, F. (1993). "Gender, Entrepreneurship and Socioeconomic Reparation in South Africa," *Review of Black Political Economy* 21, 151–165.

Berry, A., M. von Blitnitz, R. Cassim, A. Kesper, B. Rajaratnam, and D. van Seventer (2002). "The Economics of SMMEs in South Africa, Trade and Industry Policy Strategies," Working Paper, Johannesburg, TIPS.

Brink, A., M. Cant, and A. Ligthelm (1999). "Problems Experienced By Small Businesses in South Africa," Unpublished Manuscript, University of South Africa.

Carree, M., A. van Stel, R. Thurik, and S. Wennekers (2002). "Economic Development and Business Ownership: An Analysis Using Data of 23 OECD Countries in 1976–1996," *Small Business Economics* 19, 271–290.

Department of Trade and Industry, Republic of South Africa (1995). *White Paper on National Strategy for the Development and Promotion of Small Business in South Africa*. Cape Town: Government Gazette 357(16317).

Dessy, D., and S. Pallage (2003). "Taxes, Inequality and the Size of the Informal Sector," *Journal of Development Economics* 70, 225–233.

Fall, P. (1989). "The Informal Sector in Developing Countries: Understanding the Organization and Mechanisms for Workable Government Policy Encouragement," *Journal of Business Venturing* 4, 291–297.

Kew, Jacqui, and J. Macquet (2002). "Profiling South Africa's Township Entrepreneurs in Order to Offer Targeted Business Support," Research Report, Centre for Innovation and Entrepreneurship, Graduate School of Business, University of Cape Town.

Ladzani, M., and J. van Vuuren (2002). "Entrepreneurship Training for Emerging SMEs in South Africa," *Journal of Small Business Management* 40, 154–161.

Lewis, Jeffrey P. (2002). "Promoting Growth and Employment in South Africa." Africa Region Working Paper Series No. 32, Economic Policy and Prospects Group, World Bank.

Mayer, M., and M. Altman (2005). "South Africa's Economic Development Trajectory: Implications for Skills Development," *Journal of Education and Work* 18, 33–56.

Morris, M., L. Pitt, and P. Berthon (1996). "Entrepreneurial Activity in the Third World Informal Sector: The View from Khayelitsha," *International Journal of Entrepreneurial Behavior and Research* 2, 59–76.

Morris, M., and L. Pitt (1995). "Informal Sector Activity as Entrepreneurship: Insights from a South African Township," *Journal of Small Business Management* 33, 78–86.

NTSIKA Enterprise Promotion Agency, Department of Trade and Industry South Africa (2003). *State of Small Business Development in South Africa*, 2002.

Nieman, G. (2001). "Training Enterpreneurs and Small Business Enterprises in South Africa: A Situational Analysis," *Development Southern Africa* 12, 173–187.

Provincial Government of Gauteng, Republic of South Africa (1997), "Economic Policy Document."

Rauch, J. (1991). "Modelling the Informal Sector Informally," *Journal of Developmental Economics* 35, 33–47.

Robins, D., L. Pantuosco, D. Parker, and B. Fuller (2000). "An Empirical Assessment of the Contribution of Small Business Employment to U.S. State Economic Performance," *Small Business Economics* 15, 293–302.

Rogerson, C. (2004). "The Impact of the South African Government's SMME Programmes: A Ten-Year Review (1994–2003)," *Development Southern Africa* 21, 765–784.

Schindehutte, M., M. Morris, and C. Brennan (2003). "Entrepreneurs and Motherhood: Impacts on Their Children in South Africa and the United States," *Journal of Small Business Management* 41, 94–107.

Schwenk, C. R., and C. B. Schrader (1993). "Effects of Formal Strategic Planning on Financial Performance in Small Firms: A Meta-Analysis," *Entrepreneurship Theory and Practice* 17, 53–64.

Statistics South Africa (2001). "*Comparative Labor Statistics* Labour Force Survey: First Round Pilot," Discussion Paper 1. Pretoria.

Valodia, I. (2001). "Economic Policy and Women's Informal Work in South Africa," *Development and Change* 32, 871–892.

Journal of Small Business Management 2002 40(2), pp. 154–161

■ GLOBAL PERSPECTIVE

Entrepreneurship Training for Emerging SMEs in South Africa

by Watson M. Ladzani and Jurie J. van Vuuren

This study analyzes the course content, training methods, and profiles of trainers and trainees of SME service providers in the Northern Province, South Africa. The findings include the need for training as well as the existence of certain deficiencies in the present entrepreneurship training. The conclusion emphasized the importance of a comprehensive entrepreneurship-training program for successful small business enterprises. Recommendations that could help sustain emerging small business enterprises are presented to SME stakeholders.

Big businesses for years have enjoyed much support from governments, financiers, and other stakeholders. This situation is, however, changing quickly in all the economies of the world (Scarborough and Zimmerer 1996). The focus is shifting towards small business development. Big businesses are trying to survive and become more competitive by downsizing and merging. This process results in many retrenched and unemployed people establishing their own small business enterprises, not only for survival, but also to generate wealth in their respective communities.

The proliferation of small businesses is welcome, since the development of small and medium-sized enterprises (SMEs) contributes significantly to job creation, social stability, and economic welfare across the globe. In the United States, for example, small business enterprises have introduced innovative products and services, created new jobs, opened foreign markets, and in the process sparked the U.S. economy into regaining its competitive edge in the world (Scarborough and Zimmerer 1996). Japan's SMEs account for the bulk of the country's business establishment, providing vital support for employment, for regional economies, and, by extension, for the day-to-day life of the Japanese people (Ministry of International Trade and Industry 1997). In Taiwan, SMEs account for about 98 percent of the nation's GDP. Although these businesses are relatively small in scale, limited in funds, and weak in structure, they make significant contributions to economic prosperity, create innumerable jobs, and promote social stability (Annual Report 1983).

Many African countries are also changing their economic policies regarding small business enterprises, thereby promoting the development of SMEs (National Economic Policy Research Unit 1995). In South Africa, the White Paper on National Strategy for the Development and Promotion of Small Business (1995) reinvented the wheel of small business development.

It should be noted, however, that when many small businesses emerge, a considerable number of them fail. Some fail at their infancy stage and some fail within a few years after start-up. The failure rate can be attributed to lack of preparedness and failure to accurately estimate the cost of starting and running one's own enterprise (Macleod 1995).

There seems to be little difference in small business failure rates between developed and developing economies. For example, it is estimated that approximately 50 percent of all start-ups fail in their first year, and 75 to 80 percent fail within the first three to five years in the U.S. (Anderson and Dunkelberg 1990). The Small Business Development Corporation (1996) indicates that up to 50 percent of the small businesses started in South Africa eventually fail. According to Macleod (1995), 80 percent of new businesses started in the Durban region of South Africa failed.

The Northern Province is one of the poorest provinces of South Africa. Of its estimated total population of 4.8 million, 46 percent is unemployed. This province has the lowest household income (55.8 percent of the workforce earns less than R6 500 per annum) and low literacy levels (27.8 percent has no education and only 7.8 percent has post-matriculation qualifications). The public sector in the Northern Province is the single most important provider of employment opportunities (University of Pretoria 1996).

South Africa's enterprise density (the number of people in the population for which self-employment is the primary source of household income per 100 people) is 2 percent. For comparison, the enterprise density in the U.S. is 2.8 percent, 3.3 percent in Germany, and 5.9 percent in Italy. Small business development in the Northern Province is undoubtedly of paramount importance. The province's enterprise density is the lowest (1.1 percent) of all the provinces of South Africa (Ntsika 1997). The difference could be attributed to the fact that the Northern Province is mostly rural (89 percent), compared to urbanized provinces such as Gauteng and the Western Cape. This low enterprise density should, however, offer an opportunity for enterprise development. The Northern Province's potential industries where successful SME development could be launched are mainly in agriculture, mining, manufacturing, and tourism.

Entrepreneurial skills training is, however, relatively new in South Africa. The government's Reconstruction and Development Programme (RDP) places major emphasis on entrepreneurial awareness and training. However, it is only since the early 1990s that colleges for vocational education and National Senior Certificates started recognizing the need for intensive training in entrepreneurship (Bowler and Dawood 1996).

Literature Review

Marais and Israelstam (1997) indicate that rapidly changing circumstances require ongoing training at all levels of the organization. Private and public organizations as well as SMEs should receive regular training. Kroon and Moolman (1992) have noted that training can help owner/managers learn how to approach certain problems, and in this way save time and money, and to become aware of certain rules and procedures that could help them do the work with fewer difficulties.

Useful categories of training might include motivational, business, and entrepreneurial skills training. Despite this broad range of possibilities, many training institutions conduct training in only one area. Institutions that mainly focus on business skills (management training) or on motivational skills and offer very little on entrepreneurial skills do a disservice to the SME sector they serve. Training for SME owner/managers should be understood to be like a three-legged pot, which will not stand with any leg missing.

Van Vuuren and Nieman (1999) developed a model amenable to empirical testing that attempts to address the question "How do you improve the entrepreneurial performance of an individual by means of training intervention?" The model postulates that entrepreneurial performance is a multiplicative function of motivation times entrepreneurial skills and business skills. Entrepreneurial performance is based on the starting of a business/utilizing an opportunity and growth of the business idea. Motivation is seen as the entrepreneur's level of need for achievement. Entrepreneurial skills include creativity, innovation, risk-taking, and the ability to interpret successful entrepreneurial role models and identification of opportunities. Business skills include being able to formulate business plans, and financial, marketing, operational, human resources, legal, communication, and management skills.

Many studies have proved that entrepreneurs can be trained. While most researchers agree that SMEs are important for development, Bechard and Toulouse (1998) indicate that organizations wishing to develop entrepreneurship by education presuppose that the lack of training for entrepreneurs is the main reason for SME failure. In a similar note, Gupta (1989) cited the results of the research done in the state of Gujarat, India, which revealed that trained entrepreneurs had a closure rate of less than 10 percent, compared to the 20 to 25 percent among other small enterprises. Profit analysis in this research revealed that 80 percent of the trained entrepreneurs were making profits, as opposed to 60 to 70 percent of the other small enterprises.

For an institution to claim that it provides entrepreneurship training is not enough. The content of what is provided, analysis of potential entrepreneurs and the expertise of trainers should also play an important role. High quality training interventions are earmarked by reduced failure rates, increased profits, and growth of SMEs.

This study addressed the problem of the high business failure rate in the Northern Province, South Africa. It is assumed that most emerging small business owner/managers start their enterprise without prior entrepreneurship training. A further assumption is that the small business training centers in the Province provide little or no entrepreneurship training.

Methodology

Case studies were conducted among the SME service providers in the Northern Province, South Africa. An in-depth description of entrepreneurial training providers was conducted, and their training materials were reviewed and compared to each other. A sample of three SME service providers was drawn from a list of eleven such service providers in the region (Department of Trade and Industry 1998). The three were: the Centre for Opportunity Development (COD); the National Industrial Chamber Purchasing and Advisory Centre (NICPAC); and the National Training Trust (NTT). Serving an average of 1,300 trainees per annum, their prominence and impact when compared with other service providers similar in terms of entrepreneurial training were taken into consideration in choosing them.

A questionnaire was used to collect the data through both personal and telephone interviews. Face validity was determined by distributing the questionnaire among a group of colleagues, followed by a group discussion to strengthen the validity of the questionnaire. Interviews were held with the managers heading the training divisions of these service providers.

Study Results

Table 1 lists the different dimensions of entrepreneurial performance training. Only three (Centre of Opportunity Development, National Industrial and Chamber Purchasing & Advisory Centre, and Northern Training Trust) of the eleven service

Table 1
Content of Entrepreneurial Performance Training

Motivation	Entrepreneurial Skills	Business Skills
Need for achievement	Creativity	Management/Leadership
Ability to inspire	Innovation	Business plans
Expectations of the high achiever	Ability to take risks	Financial skills
Obstacles or blocks	Ability to identify opportunities	Marketing skills
Help	Ability to have a vision for growth	Operational skills
Reactions to success or failure	Interpret successful entrepreneurial role models	Human Resources skills

providers provide business, entrepreneurial, and performance motivational training. That is, only 27 percent of the institutions in the region provide significant entrepreneurship training. The rest of the service providers either have very little or no entrepreneurial training among the services they provide to SMEs.

As shown in Table 2, the managers of the three firms that were interviewed pointed out that all these areas of training are provided for. However, review of the training materials found that the emphasis seems to be more on business skills training (that is, skills such as general management, financial management, marketing management, production management, pricing calculations, costing and legal skills) than on the other categories of skills.

As indicated in Table 3, a few fundamental elements of entrepreneurship training were highlighted. The content and extent of training in these elements were compared to one another. Two service providers offer these services to large extent. The third one seems to put less emphasis on some of these elements. All three service providers offered conventional management training to a large extent.

Profiles of Trainers and Trainees

Interviews with the trainers from the three firms indicated that they have undertaken an entrepreneurship course in one level or another (either at degree, diploma, or certificate level). Training and business experiences were also taken into consideration when these trainers were employed. However, the owner/managers (trainees) whom the three firms trained did not undergo training prior to starting their enterprises. This is discouraging in that much capital is lost when these emerging entrepreneurs struggle to find their way when starting and growing their own enterprises towards success.

Figure 1 presents data on the number of enquiries and trainees these three firms receive in a year. As the figure shows, the number of business enquiries is much greater than the number of actual trainees. The findings indicated that the margin between business enquiries and training attended is much wider than expected. While on the one hand, it proves that there is potential for training; on the other hand, answers should also be sought as to why many people do not make use of the existing SME service providers.

Recommendations and Conclusion

Although the failure rate among emerging small business enterprises is high, there are at least some firms that are trying to address this situation. What needs to be done in the Northern Province is to improve the training that is currently

Table 2
Training Services Provided

Training Services	Service Provider COD	NICPAC	NTT
Business	✓	✓	✓
Entrepreneurial	✓	✓	✓
Technical	✓	✓	✓
Other[a]	✓	✓	✓

[a]This includes after-care services, tendering procedures and negotiation skills.

Table 3
Content and Extent of Entrepreneurship Training

Skills	COD	NICPAC	NTT
Management skills	1	1	1
Opportunity identification	1	2	3
Business plan	1	2	3
Need for Achievement	1	2	1

SCORES: To a large extent = 1; to some extent = 2; to a lesser extent = 3; Not at all = 4

provided. The public and private sector should support and strengthen the initiatives of the present institutions. Training alone may not be the magic for small businesses to flourish. Constraints such as the lack of financial resources, lack of access to markets, lack of support services, and low literacy levels should also be addressed.

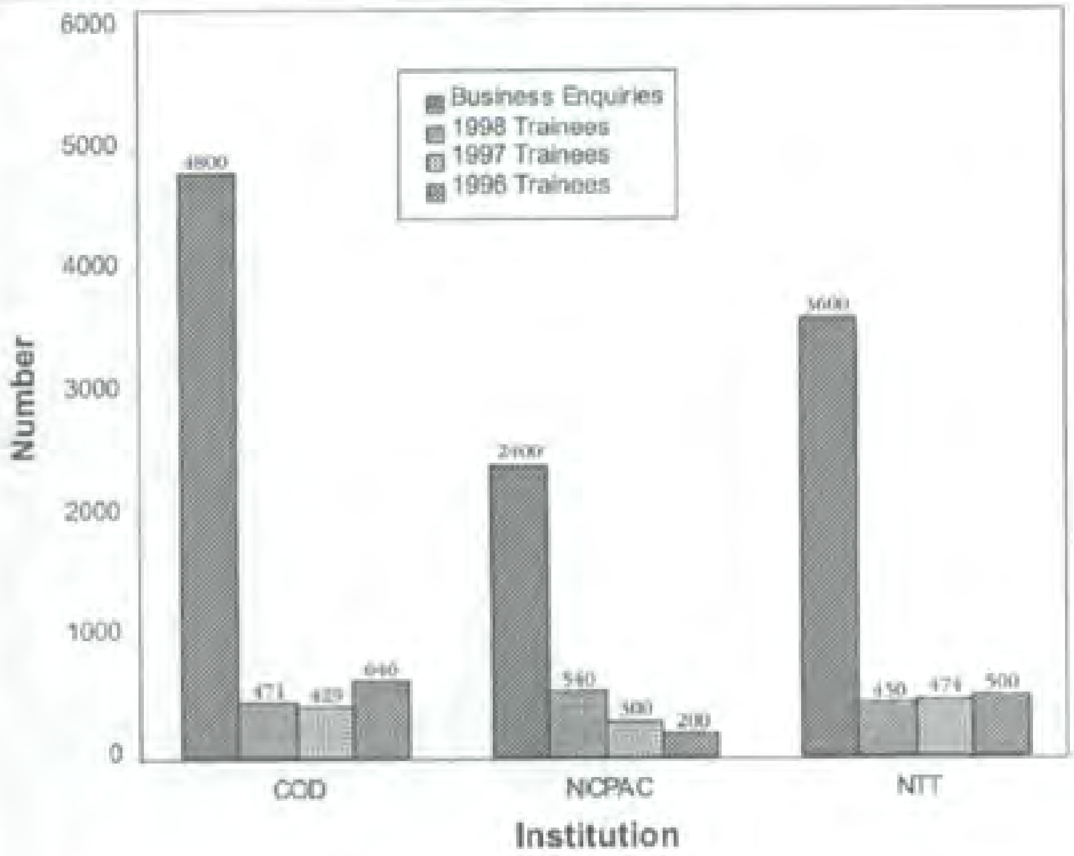
According to Hisrich and Peters (1995), training plays a pivotal role in supporting emerging small businesses. For example, although a business may have the needed finance, without financial controls, its failure is probable. In the same manner, a business may have access to the markets, but ignorance about how to market products and services poses a serious obstacle to success.

An effort should be made to balance the three constructs indicated in Van Vuuren and Nieman's (1999) model in the training programs of the firms in the study. Entrepreneurship training should be seen as one of the basic requirements of starting and running a business.

The region reviewed indicated a very high potential for small business establishments. For this potential to be realized, knowledgeable SME training providers need to be in place. The SME service providers in the Province should pool all their resources to serve this emerging market. Efforts should be made to train both existing and new entrepreneurs.

The following actions are recommended to reduce the failure rate of new small businesses and to strengthen entrepreneurship training for successful small business enterprises in the Northern Province:

Figure 1
Statistics of Business Enquiries and Entrepreneurship Trainees per Annum



- **Existing Training Firms Should Revise their Training Materials.**
  It is good that business skills are offered to entrepreneurs. It is even better to introduce and strengthen entrepreneurial skills, particularly to emerging entrepreneurs, so that they know how to generate ideas, screen these ideas, identify opportunities from the generated ideas, and assess whether they have entrepreneurial characteristics that would enable them to succeed in business.
- **SME Service Providers Should Benchmark their Services with Successful Similar Institutions.**
  SME service providers that are successful should share the secret of their success with those that are attempting to succeed.
- **Educational Institutions Should Introduce and/or Strengthen Entrepreneurship Education.**
  An entrepreneurial culture should begin at home, and then proceed to higher education and training institutions. When pupils are oriented into entrepreneurship from an early age, it becomes easier when they have their own entrepreneurial ventures.
- **Emerging and Potential Entrepreneurs Should be Encouraged to Take Courses in Entrepreneurship.**
  The government, labor, business,

community centers, and church organizations should join hands in empowering existing and potential SMEs with the necessary entrepreneurial skills. SME owners should, for example, be encouraged to be trained either through correspondence courses, short courses, diploma courses, or in-house training. In this context, entrepreneurs should meet periodically, and current successful entrepreneurs could discuss keys to successful business ventures.

Limitations of the Study

The study did not include interviews of individual entrepreneurs and small business owners. The assumption is that training institutions deal closely with these people on a periodic basis and therefore know their strengths and weaknesses. Also, the interviewer could not attend training sessions in order to observe the effectiveness or otherwise of the training techniques and reactions of trainers and trainees.

Conclusion

Entrepreneurship in South Africa appears to be an uncultivated field waiting to be cleared, cultivated, and planted. Research on areas such as evaluating the quality of training programs, comparing outcomes of trained versus non-trained entrepreneurs, and evaluating the contribution of entrepreneurship toward curbing unemployment still needs to be conducted.

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References

Anderson, R.L., and J.S. Dunkelberg (1990). *Entrepreneurship: Starting a New Business.* New York: Harper & Row, Publishers.

Annual Report (July 1982–June 1983). *Financial and Management Services to Small/Medium Businesses in Taiwan, the Republic of China*, 3.

Bechard, J.P., and J.M. Toulouse (1998). "Validation of a Didactic Model for the Analysis of Training Objectives in Entrepreneurship," *Journal of Business Venturing* 13, 317–332.

Bowler, A., and M.S. Dawood (1996). *Entrepreneurship and Small Business Management*, 3rd edition. Cape Town: NASOU Via Afrika Educational Publishers.

Department of Trade and Industry (1995). "White Paper on National Strategy for the Development and Promotion of Small Business in South Africa." *Government Gazette*, March 28. Pretoria: Government Printers.

——— (1998). *Northern Province Directory of SME Service Providers.* Pretoria: C.T.P. Book Printers (Pty) Ltd.

Gupta, S.K. (1989). "Entrepreneurship Development: The Indian Case," *Journal of Small Business Management* 27, 67–69.

Hisrich, R.D., and M.P. Peters (1995). *Entrepreneurship*, 3rd edition. Irwin/ McGraw-Hill.

Kroon, J., and P.L. Moolman (1992). *Entrepreneurship*. Potchefstroom, South Africa: Central Publications, Potchefstroom University for Christian Higher Education.

Macleod, G. (1995). *Starting Your Own Business in South Africa*, 8th edition. Southern Africa: Oxford University Press.

Marais, P., and I. Israelstam (1997). "Businesses that Don't Train their People Go Off the Rails," in *Workplace, Star Newspaper*, February 26, 2.

Ministry of International Trade and Industry (MITI) (1997). *White Paper on Small and Medium Enterprises in Japan.*

Tokyo, Japan: Small and Medium Enterprise Agency.

National Economic Policy Research Unit (1995). *Travel and Meeting Report No.12 : Senior Policy Workshop on Stimulating and Sustaining Small- and Medium-Scale Enterprises.* Addis Ababa, November 14–18, 1994.

Ntsika (1997). *The State of Small Business in South Africa*, 2nd edition. Pretoria, South Africa: Ntsika Enterprise Promotion Agency.

Scarborough, N.M., and T.W. Zimmerer (1996). *Effective Small Business Management*, 5th edition. Upper Saddle River, NJ: Prentice Hall, Inc.

Small Business Development Corporation (1996). "SMME Failures Worry Financiers," in *Sowetan Newspaper,* April 1, 22.

University of Pretoria (1996). "Final Report: Economic Development Strategy: Eastern Regions of the Northern Province: Phase One," *Statomet: Bureau for Statistical and Survey Methodology*, 13–46.

Van Vuuren, J.J., and G. Nieman (1999). "Entrepreneurship and Education in Training: A Prospective Content Model," paper read in Slovenia, June.

◆ INTERNATIONAL NOTE

INFORMAL SECTOR ACTIVITY AS ENTREPRENEURSHIP: INSIGHTS FROM A SOUTH AFRICAN TOWNSHIP*

In many parts of the world, emphasis has been placed on the so-called "informal sector" as a contributor to the economic welfare of society (Gang and Gangopadhyay 1990; Mabogunje, Linn, and Cohen 1991, Telles 1992). And yet, despite its apparent size and scope, the extent to which this sector is an important source of economic vitality remains unclear. Much of what is labeled informal would seem to be basic survival activity, creating little in the way of employment or wealth (Fall 1989, Ntoula 1989, Segal 1990).

The purpose of this study is to further explore the nature of the informal sector, and specifically, to distinguish entrepreneurial from non-entrepreneurial business activity within this sector. Results are described of a series of in-depth interviews with owners from a cross-section of small businesses located in a black South African township. The data are assessed to determine the extent to which informal sector businesses reflect entrepreneurial growth potential. A number of relationships between background, operating, and outcome variables are examined.

*The authors gratefully acknowledge the support for this project provided by the Graduate School of Business, University of Cape Town, Cape Town, South Africa and the research assistance of Mr. Derrick Hutchins and Ms. Corinne van Erkom Schurink.

The Informal Sector

There is no generally accepted definition of the informal sector, which helps to explain large discrepancies in reports regarding its size in a given country (Alsedian and DeSmidt 1990, Sethuraman 1981). Nonetheless, the informal sector typically refers to economic activities not recorded in the national accounts, and not subject to formal rules of contract, licensing, labor inspection, reporting and taxation (International Labor Organization 1984). These activities can be characterized in terms of ease of market entry, reliance on indigenous resources, small scale of operation, labor intensity, skills acquired from outside the formal school system, and markets that are unregulated and competitive (Marius 1987).

While some of these businesses are one-person operations, in developing countries there tends to be heavy reliance on the family unit (Berger 1991). Specific roles are likely to evolve for children, adult males, and older relatives. Frequently, the female head of the family is the driving force behind the business, providing the skills, hard labor, stamina, and an unwavering desire to keep the business going. Alternatively, the male head of household may go back and forth, looking for formal sector jobs but falling back on the family business much of the time.

The motivation behind most informal sector businesses is generally assumed to be personal survival, as opposed to return on investment (Rauch 1991). Although this sector will tend to have rich and poor components, most of these businesses provide a subsistence existence. Returns tend to be low and intermittent, security and stability are minimal; working hours are long, and working conditions are poor (Devarintert and Watson 1981). Thus, the scope and importance of informal activities will tend to parallel the levels of poverty and underemployment in an economy (Marius 1987). The tremendous growth of this sector in recent decades is also said to parallel urbanization, with migration to cities in developing countries far outpacing the employment capacity of modern manufacturing and other formal sector activities (Sethuraman 1981).

Informal sector businesses are generally assumed to demonstrate low levels of productivity, especially given their labor intensity, limited skill pool, and small scale of operation. However, it has also been argued that this sector is quite efficient at generating job opportunities and satisfying basic population needs at very low cost (Koray 1991, Staubus 1989). It is assumed by others that the structure or make-up of this sector is relatively homogeneous in developing economies, but some evidence also exists of significant diversity (Berger 1991, Fall 1989, Telles 1992). There appear to be disproportionate numbers of retail trade and service-oriented enterprises, but various country studies have reported sizeable numbers of manufacturing, metal working, construction, assembly, and wholesale operations (Lubell and Zarour 1990, Staubus 1989). Diversity has also been observed in the size and operational sophistication of informal sector enterprises (Halverson-Quevedo 1992, Vosloo 1988).

Informal Sector Activity in South Africa

The South African economy has experienced tremendous turbulence in recent years, owing in large part to the dynamic process of internal transformation which continues to unfold. Not only is the country in the process of abandoning the last vestiges of apartheid and finalizing the move to democracy and majority rule, but it continues to feel the impact of worldwide recession and the lingering effects of international trade sanctions.

The informal sector in South Africa is estimated to represent a portion of between 16 percent and 40 percent to current gross domestic product (GDP) (Abedian and DeSmidt 1990, DeSmidt 1988, Thomas 1989). Approximately 4 million jobs are attributed to this sector, while the formal sector accounts for about 7.7 million jobs (Sham 1991, Thomas 1989). Estimates of annual GDP per worker are R11,400(rand, 3.6 rand = $1 U.S.) in the informal sector, compared to R30,400 in the formalized small and medium enterprise sector (*Financial Mail* 1991). Some 22 percent of the potentially active black population is thought to be involved in informal activities (Raine 1989), while this sector is projected to include between 500,000 and 700,000 businesses (*African Business and Chamber of Commerce Review* 1990, Vosloo 1988). One major study of informal business activities identified four general categories: trading and hawking (55 percent of total businesses), production and construction (23 percent), services (16 percent), and illicit activities (6 percent) (Raine 1989).

As a function of the dismantling of apartheid, and some general deregulation of the economy, informal sector activity is rapidly expanding in two arenas. The first of these is in the major cities, where the granting of civil and economic rights to blacks has resulted in a burgeoning unlicensed taxi industry, large numbers of street and mall hawkers, and an abundant supply of unrecorded domestic and household maintenance services. The other growth area is the black townships. The removal of restrictions on where blacks could live, work, and travel produced large migrations from rural areas to cities. However, lack of available and affordable housing led to the development of squatter camps, some of which rapidly evolved into substantial communities. A number of these black townships surround every major city, and most have experienced uncontrolled population growth.

Khayelitsha is a case in point. The development of this township began in 1983 on sandy wasteland just south of Cape Town. Initial projections were for 220,000 people. However, current estimates place the population at well over 1 million (Kupiso 1993). Residents have 99-year household rights, with most of the housing consisting of wood, corrugated iron, or cardboard shacks. There is a water supply, and some electricity, but no sewage system. Schools have been built, and roads are being constructed. Average household occupancy is 5.3 (DeSmidt, 1988).

Informal sector activity is pervasive in townships, and Khayelitsha is no exception. In one study (Aymes 1989), it was found that an informal business was operating in every fifth township house. Most of these were single-person operations, with about one-third employing a family member. Close to 70 percent were operated by females. The most prevalent types of businesses appear to be grocery shops, butcheries, hairdressers, seamstresses, and shebeens (liquor establishments) (DeSmidt, 1988).

Ongoing socio-economic developments in South Africa suggest that the economy would collapse without a sizeable and growing informal sector (Broom and Joyce-Clark 1989, Ntoula 1989). The population is on course to double its size within 27 years. The economy, which has actually contracted in the past few years, must grow at a rate of 5 percent per year to absorb the burgeoning labor pool (*Manpower Brief* 1990). At issue, particularly from a public policy standpoint, is the extent to which the informal sector represents a viable solution to the growth needs of the country, and so should be prioritized in ongoing economic development efforts. This brings us to the current study.

The Study

To develop further insights regarding prospects for entrepreneurial growth within the informal sector, a cross-sectional survey was conducted within the black South African township of Khayelitsha. Owner-managers of 30 informal sector businesses were personally interviewed at their place of business. Because the research interest was growth potential, only businesses involved in producing a product or delivering a specialized service were included (for example, the multitude of small grocery and liquor retailers were excluded). A quota sample was constructed consisting of 15 businesses involved in production trades (for example, leather goods, wrought iron work, joinery, brickmaking, and clothmaking) and 15 in service trades (e.g., bicycle repair, television and radio repair, auto body repair, and photography).

A questionnaire was designed consisting of 31 open-ended items covering the following six areas: motivation for starting the business (two items), background before starting the business (four items), initial resources (two items), operational sophistication of the business (fourteen items), performance of the business (four items), and future outlook (five items). For a number of the items, the interviewer was provided with a scale of possible answers if the respondent needed help in understanding what was being asked. For instance, when asking how respondents get paid by customers, answer prompts included "barter," "cash in advance," "cash on delivery," "cheque," and "on account." The questions were worded to emphasize simplicity and clarity. Even so, some interpretation problems were encountered and certain terms had to be translated back and forth a number of times.

Interviews were conducted by two teams, each consisting of two trained individuals who were residents of the township and a trained graduate student. The surveys were conducted in English or the native language of the subjects, depending on their preferences. Each interview lasted between 35 and 60 minutes. The project was explained as a study being conducted by the school of business at a local university, and participation was voluntary. In spite of some initial hesitation, respondents proved to be relatively cooperative.

Descriptive Findings

The median age of respondents was 37.5 years and ranged from 20 to 70 years. Contrary to the earlier-cited stereotypes, the sample consisted of far more males than females (80 percent versus 20 percent). All businesses were unregistered, unlicensed, and non-taxpaying. Only 7 percent kept formal books. As summarized in table 1, the typical respondent had resided in the general region in which Khayelitsha is located for 12.3 years. Virtually all of them (93 percent) had not owned any businesses prior to the current one. Most had received a formal education only through standard 5, and close to one-fourth (23 percent) had obtained some sort of formal job training, either at a training center, technical school, or a formal sector company.

The majority of respondents created their businesses out of economic necessity, principally because they were out of work or needed to supplement their incomes. And yet, nearly one-fourth (23 percent) were driven by the recognition of an opportunity. At the time they started the business, most of the respondents reported that they did have other employment opportunities, close to two-thirds of which were within the formal sector. Three-fourths of the respondents started their businesses with R500 or less (approximately $170 U.S.), and 54 percent started with less than R100. This money came principally from personal savings (60 percent) or a family loan (13 percent).

The operational sophistication of these businesses is reflected in table 2. The tendency was to purchase inventory when orders are placed or a deposit taken (69 percent), to buy between R101 and R500 worth of material at a time (74 percent), and to purchase at retail (60 percent). When transporting materials or finished goods, 40 percent reported that they used their own transport. Just over half (53 percent) reported that they owned one or more pieces of equipment or machinery. While 57 percent concentrated their sales within Khayelitsha, 30 percent sold to customers in other townships, and 13 percent sold to customers not from townships. When charging customers, the tendency was to negotiate and/or vary prices depending on the customer (53 percent), and to require cash in advance or on delivery of goods and services (73 percent).

In terms of performance, just under one-half (45 percent) of the businesses in the sample had created employment opportunities for at least one non-family member (see table 3). Monthly sales figures tended to be under R5000, with 43 percent of the businesses reporting sales between R501 and R2000, and 27 percent between R2001 and R5000. The

Table 1
BACKGROUND, MOTIVATION, AND INITIAL RESOURCES OF RESPONDENTS

Background	
Length of time residing in the general region:	median = 12.3 years
Number of businesses owned before current one:	93% indicated none
Level of formal education:	none = 23%
	standard 2 = 13%
	standard 5 = 37%
	standard 8 = 24%
	standard 10 = 3%
Sources of training for your business:	none = 7%
	self taught = 45%
	training center = 24%
	technikon = 21%
	company = 3%
Motivation	
Reason for starting business:	unemployed = 40%
	to supplement income = 30%
	to be independent = 7%
	recognized an opportunity = 23%
Other employment opportunities:	none = 30%
	farming = 3%
	factory = 8%
	company = 53%
	housework/domestic = 3%
	informal sector = 3%
Initial Resources	
Money used to start business:	less than R100 = 54%
	R101 to R500 = 25%
	R501 to R1500 = 15%
	R1501 to R3000 = 3%
Source of initial financing:	personal savings = 80%
	family loan = 13%
	bank loan = 7%

typical respondent had kept their business going for 3.2 years.

Also summarized in table 3 are the owners' perceptions regarding the future of their businesses. Focusing on the next three years, all of the respondents anticipated some form of growth. The most common expectations were a new and better location (35 percent), increased sales (31 percent), enlarged premises (21 percent), and additional employees (10 percent). The majority perceived the existence of untapped opportunities, principally in the form of new customers (37 percent), new products and services (30 percent), and increased sales to existing customers (17 percent). To support growth, 29 percent of the respondents had plans to obtain additional financing of some sort. Overall, the owners were relatively positive about the future, with 64 percent indicating the outlook for their businesses was good or very good, and only 3 percent suggesting the outlook was poor or very poor. Consistent with this positive outlook, just 10 percent indicated they would definitely give up their business if offered a stable job with an established firm in the formal sector, and another 27 percent indicated they might do so, but with considerable difficulty.

Key Relationships

In an attempt to gain further insights, the items in the survey were grouped into input (for example, background and initial resources), throughput (for example, operational sophistication), and output (performance and future outlook) categories. Relationships among these

Table 2
OPERATIONAL SOPHISTICATION OF RESPONDENT ORGANIZATIONS

a. When materials are purchased:
3% spare money — 10% order placed — 49% deposit taken — 38% low stocks

b. Average material purchase:
15% < R100 — 74% R101-R500 — 7% R501-R1000 — 4% R1001-R2500

c. Source of materials:
13% producers — 27% wholesalers — 60% retailers

d. Method of transport:
40% own transport — 33% hired transport — 21% taxi — 3% walking

e. Ownership of equipment/machinery (other than hand tools):
47% yes — 53% no

f. Source of sales/customers:
57% same township — 30% other townships — 13% outside townships

g. Method of pricing:
53% variable markup/bargaining — 17% fixed markup — 30% match competition

h. Customer payment method:
13% cash in advance — 60% cash on delivery — 24% account — 3% layaway

Table 3
PERFORMANCE AND FUTURE OUTLOOK FOR SAMPLED BUSINESSES

Performance

Non-family Employees:
55% none — 31% 1-2 — 7% 3-4 — 4% 5-6 — 3% 7-8 — 0% 9-more

Monthly Turnover (Sales):
17% < R500 — 43% R501-R2000 — 27% R2001-R5000 — 10% R5001-R10000 — 3% R1001-R20000

Years in Business:
median = 3.2 — mean = 5.3

Future Outlook

Where business will be in three years:
0% no idea — 0% out of business — 0% no change — 10% additional employee
21% enlarged premises — 35% new location — 31% increased sales — 3% formal sector

New business opportunities next three years
13% don't know — 3% none — 37% new customers — 17% increased usage rates
30% new products/services

Intentions to obtain additional financing:
33% none — 13% from profits — 3% family loan — 10% bank loan
3% sbdc loan — 27% unsure

Overall outlook for business:
0% very poor — 3% poor — 33% average — 40% good — 24% very good

Give up business if offered stable job:
63% no — 27% with difficulty — 10% yes

Plans to pass on business:
13% none — 66% to children — 14% to family other than children — 7% to new owner

three were then assessed. Despite the small sample size, a number of significant findings were produced.

To facilitate this analysis, a summated scale was constructed to provide a comprehensive measure of operational sophistication. This was accomplished by recoding the responses to the items listed in table 2 into values of 0 and 1, where 1 reflected a more sophisticated operation.

Although somewhat arbitrary, the businesses were placed into the sophisticated category if they based purchases of materials on some sort of inventory planning, purchased over R500 of material at a time, purchased from wholesalers or producers, owned their own transport, owned equipment or machinery, made sales outside of the immediate township, used a fixed mark-up or a competition-based pricing system, or offered credit terms to customers. When summed, respondent organizations could achieve a score ranging from 0 to 8, with higher scores representing more sophisticated operations. The resulting scale had a mean score of 3.53 and standard deviation of 1.99.

Using a series of *t*-tests and simple correlation analyses, relationships between input measures and operational sophistication were examined. Significant, positive relationships were subsequently identified between operational sophistication and the level of formal education completed by respondents ($r = .36$, $p < .05$), as well as whether or not they had received any formal occupational training ($t = 2.01$, $p < .10$).

Next, relationships between sophistication and output measures were assessed. Higher levels of business sophistication were associated with greater sales turnover ($r = .38$, $p < .05$) and the number of family members employed by the business ($r = .30$, $p < .10$). In addition, sophistication was negatively associated with the likelihood that a respondent would give up the business if offered a formal sector job ($r = -.51$, $p < .01$) and positively associated with future growth plans ($t = 2.36$, $p < .05$) and with whether (or not) respondents planned to pass the business on to their children ($t = -1.97$, $p < .10$).

Finally, input measures were run against output measures. In this case, significant relationships resulted between years of formal education and the number of non-family members employed ($r = .38$, $p < .05$), sales turnover ($r = .47$, $p < .01$), and the future economic outlook for the business ($r = .35$, $p < .05$). Further, respondents who had started their business based on a perceived opportunity (as opposed to economic need) were also more likely to employ non-family members ($t = 2.51$, $p < .05$) to have higher sales ($t = 1.85$, $p < .10$), and to perceive a positive future outlook for their business ($t = 2.73$, $p < .05$). Those who began the business with a loan were more apt to have plans to pass the business onto their children ($\chi^2 = 6.28$, $p < .05$) and to see a favorable economic outlook for their business ($t = 2.78$, $p < .05$).

Conclusions

The appeal of the informal sector as a solution to problems of economic development can be traced in many countries to its size as well as its ability to grow in spite of formidable obstacles. Yet, there are many who question this course of action (Fall 1989, International Labor Organization 1992, Magomoto 1992, Ntoula 1989, Segal 1990). They argue that the informal sector represents little more than survival activity. At best, according to this line of reasoning, this sector provides a type of training ground or apprenticeship, but even so, may be inadequate at preparing individuals to compete for formal sector jobs.

The results of the current study suggest that a different set of conclusions be drawn. The well-publicized studies by Birch (1979, 1987) in which he demonstrates that most job creation originates from the small business sector have been shown to involve a caveat. A relatively small percentage, roughly 10 percent, of small businesses are responsible for creating virtually all the new jobs (Birch and McCracken 1982, Reynolds 1986). Accordingly, this sub-group has been labeled the "entrepreneurial sector."

Our findings suggest that there is a parallel in the informal sector, such that while most informal businesses do little more than subsist, a sub-group exists which is relatively dynamic. Identifying this sub-group may not be easy, but we believe this study provides some direction. We began with businesses that made a product or delivered a specialized service, which may serve as a good initial screen when looking for entrepreneurial potential. The overall sample demonstrated more of an opportunity-driven mindset, future-oriented outlook, and a higher level of business sophistication than has been reported or attributed in other informal sector studies. However, these other studies included food shops, liquor stores, butcheries, hawkers, domestic servants, and so forth.

Beyond this, it appears that the formal education level achieved and the skills-related training received by individuals are key factors in their accomplishing a degree of sophistication in business operations. Moreover, informal sector businesses that are more sophisticated tend to achieve higher levels of sales, to create more jobs for family members, and to have a more positive growth outlook. Education levels are also directly related to creation of non-family employment. In addition, motivation is a factor in success, with those who report being driven by the perception of opportunity tending to create more growth.

REFERENCES

Abedion I., and M. DeSmidt (1990), "The Informal Economy in South Africa, *The South African Journal of Economics* 58 (4), 404-424.

African Business & Chamber of Commerce Review (1990), "Deregulation: Brought About by Pressure from Black Informal Sector," 16, 23 (August), 14.

Aymes, G.W. (1989), "The Spaza Shop Growth Phenomenon: Is It Real?" *Marketing Mix* 7 (6), 14.

Berger, B. (1991), *The Culture of Entrepreneurship*. San Francisco: Institute for Contemporary Studies.

Birch, D.L. (1979), *The Job Generation Process*. Cambridge, Mass.: Massachusetts Institute of Technology.

________ (1987), "The Booming Hidden Market," *Inc.* 9 (November), 15.

Birch, D.L., and S. McCracken (1982), *The Small Business Share of Job Creation. Lessons Learned from the Use of Longitudinal Data*. Washington, D.C.: U.S. Small Business Administration.

Broom, M., and C. Joyce-Clarke (1989), *A Retail Perspective of the Informal Sector*. Cape Town, University of Cape Town Graduate School of Business, Institute of Retail Studies.

DeSmidt, M.B.P. (1988), *The Informal Sector, in Theory and Practice: An Examination of the Informal Activities in Block C, Site C, Khayelitsha*, Cape Town. (Economic Honours Long Paper, School of Economics, University of Cape Town, Cape Town.)

Devarinert, D.L. and V. Watson (1981), *Unemployment and the "Informal Sector": Some Proposals*. Cape Town, University of Cape Town, Urban Problems Research Unit.

Fall, Papa Nalla (1989), "The Informal Sector in Developing Countries: Understanding the Organization and Mechanisms for Workable Government Policy Encouragement," *Journal of Business Venturing* 4 (5), 291-297.

Financial Mail (1991), "Survey on the Small Business Development Corporation," 120, 3 (April 19), 1-48 (supplement).

Gang, Ira N., and Shubhashis Gangopadhyay (1990), "A Model of the Informal Sector in Development," *Journal of Economic Studies* 17 (5), 19-31.

Halverson-Quevedo, Raundi (1992), "The

Growing Potential of Micro-Enterprises," *OECD Observer,* 7-11.
International Labor Organization (1992), *The Urban Informal Section in Asia: An Annotated Bibliography,* Geneva, Switzerland: International Labor Organization.
_______ (1984), *World Labor Report,* vol.1, Geneva, Switzerland: International Labor Organization.
Koray, Meryem (1991), "Employment and Unemployment in Turkey," *International Journal of Manpower* 12 (5), 15-21.
Kupiso, M. (1993), Personal Interview (February 24, 1993), Liaison office, Khayelitsha Business Association.
Lubell, H., and C. Zarour (1990), "Resilience Amidst Crisis: The Informal Sector of Dakar," *International Labour Review* 129 (3), 387-396.
Magomola, G.T. (1992), Commencement Speech, University of Cape Town, Cape Town, South Africa (December 8).
Manpower Brief (1993), "Think Wealth Not Welfare," May, 1-15.
Marius, H. (1987), "The Informal Sector in Developing Countries," in *Small Enterprise Development: Policies and Programs,* ed. P. Neck and R. Nelson, Geneva, Switzerland: International Labor Organization.
Mabogunje, Akin L., Johannes F. Linn, and Michael Cohen (1991), "A New Paradigm for Urban Development," *World Bank Research Observer,* 191-219.
Ntoula, R. (1989), "Spaza Shops: Backbone of the Informal Sector," *African Business & Chamber of Commerce Review* 16 (February), 6.
Raine, S. (1989), "In the Pipeline," *Leadership SA* 8 (October), 117.
Rauch, J.E. (1991), "Modelling the Informal Sector Formally," *Journal of Development Economics* 35 (January), 33-47.
Reynolds, P.D. (1986), "Organizations: Predicting Contributions and Survival," in *Frontiers of Entrepreneurship Research,* ed. R. Ronstandt et al., Wellesley, Mass.: Babson College, 584-600.
Segal, S. (1990), "A Big Business: But Informal Sector Is Not SA's Saving Grace," *Finance Week* 44 (February 15), 65.
Sethuraman, S.V. (1981), *The Urban Informal Sector in Developing Countries: Employment, Poverty, and Environment,* Geneva, Switzerland: International Labor Organization.
Sham, B. (1991), "The Informal Sector: A Great African Dream," *The South African Institute of Organizations and Methods* 30 (March), 10.
Staubus, J. (1989), "Latin America's Black Economies," *Multinational Business* 4 (Winter), 35-39.
Telles, E.E. (1992), "Who Gets Formal Sector Jobs? Determinants of Formal-Informal Participation in Brazilian Metropolitan Areas," *Work and Occupations* 19 (May) 108-127.
Thomas, W.H. (1989), "South Africa's Growing Black Market: Challenges for the 1990s," Speech at the Spotlight on the Black Market, Conference sponsored by the Small Business Development Center in Johannesburg, South Africa, June 6, 1989.
Vosloo, W.B. (1986), "Small Business Development and the Emergence of the Black Entrepreneur," paper delivered at the Eighth National Congress of Chartered Accountants (June 9), Johannesburg, South Africa.

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Human Resource Management Review
13 (2003) 281–301
Human Resource Management Review
www.socscinet.com/bam/humres

Person–entrepreneurship fit: why some people are more successful as entrepreneurs than others

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Abstract

Person–organization fit research suggests that the closer the match between individuals' attitudes, values, knowledge, skills, abilities, and personality, the better their job satisfaction and performance. We suggest that the closer the match between entrepreneurs' personal characteristics and the requirements of being an entrepreneur (e.g., creating new companies by transforming discoveries into marketable items), the more successful they will be. Specifically, we argue that to the extent entrepreneurs are high on a number of distinct individual-difference dimensions (e.g., self-efficacy, ability to recognize opportunities, personal perseverance, human and social capital, superior social skills) the closer will be the *person–entrepreneurship fit* and, consequently, the greater the likelihood or magnitude of their success. This framework offers potentially valuable new avenues for assisting entrepreneurs in their efforts to exploit opportunities through the founding of new ventures because the dimensions of individual differences we identify are readily open to modification (e.g., through appropriate, short-term training).

Keywords: Person–entrepreneurship fit; Entrepreneurs; Person–organization fit

1. Introduction

Person–organization fit research is concerned with the antecedents and consequences of compatibility between persons and the jobs they perform or the organizations in which they

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1053-4822/03/$ – see front matter © 2003 Published by Elsevier Science Inc.
doi:10.1016/S1053-4822(03)00018-4

work (Kristof, 1996). The findings of such research indicate that individuals choose work environments as a result of many different factors, including their attitudes, values, abilities, personality, and various job dimensions, as well as factors relating to organizational structure and culture (Van Vianen, 2000). While traditional recruiting manuals emphasize matching a person's knowledge, skills, and abilities to the requirements of a particular job, the notion of person–organization fit emphasizes congruence in values, goals, attitudes, and personal preferences. Stated differently, people are attracted to work settings that are consistent with their values and fulfill their needs (Cable & Judge, 1996).

While much research in personnel selection has focused on important components of fit with respect to existing, well-established organizations and routines, far less attention has been directed to person–organization fit in the context of new venture formation. More notably, to date, neither person–organization fit literature nor entrepreneurship research offers concrete guidance as to the factors that make some persons, but not others, successful as technological entrepreneurs. This paper focuses primarily on the task of filling this gap. Specifically, we develop a model in which to identify various individual-difference factors that may play an important role in entrepreneurs' success. It is understood that entrepreneurial success takes many forms, but since entrepreneurs often create new companies, we explicitly conceptualize such success in these terms, primarily as success in launching a new company into the marketplace. Finally, we recognize that entrepreneurship is multidimensional, but since technological innovation is a key source of economic growth and prosperity, we cast our discussion to fit particularly well with such contexts.

The paper is divided into four major sections. In Section 1, we define two research domains—one encompassing person–organization fit and the other concerning person–entrepreneurship fit. In Section 2, we focus on some of the ways in which mature and start-up companies differ, and how these differences may be reflected in the role requirements for employees (of mature companies) and entrepreneurs who start new ventures. For example, the main and most obvious task entrepreneurs, but not others, embark on involves a series of actions leading to new venture formation. In Section 3, we discuss person–entrepreneurship fit and show how specific individual-difference variables are crucial for successful execution of key tasks and functions entrepreneurs fulfill. We conclude the third section by introducing a model of person–entrepreneurship fit and entrepreneurial success. In the final section, we suggest new directions for future research in which individual-difference factors can further our theoretical understanding of entrepreneurial activities and also describe practical implications of our framework.

2. Person–organization fit and person–entrepreneurship fit: some basic considerations

In this section, we review previous research on person–organization fit and examine recent research on person–entrepreneurship fit—a smaller but rapidly expanding body of knowledge. Research on person–organization fit is highly diverse; thus, a comprehensive examination of this topic is beyond the scope of the present paper. Instead, we present a brief overview of key findings in this domain, primarily as a means of establishing clear boundaries and parameters (interested readers are referred to several reviews of this topic, including Cable & Judge, 1996, 1997; Chatman, 1991; Kristof, 1996; O'Reilly, Chatman, & Caldwell, 1991; Schneider, Goldstein, & Smith, 1995).

All organizations—established ones and newly founded ones—face intense competitive pressure. Literature on person–organization fit holds that one solution to this problem is to attract, recruit, and retain talented persons who invigorate the organization and mobilize it to achieve its performance goals. For example, Jack Welch personally interviewed all candidates for the top 500 ranking positions at GE. This view—that hiring the right people is crucial (Pfeffer, 1998)—has stimulated substantial research on person–organization fit. Research building on Kirton's (1976) Adaption–Innovation Theory of problem-solving style at work found that although cognitive misfit may not influence engineers' job performance, it does predict their turnover (after 3 years) (Chan, 1996). Similarly, Cable and Judge (1996) reported that value congruence (between job seekers and organizations) is more important than whether job seekers and organizational representatives share similar background. Controlling for the attractiveness of job attributes, they also report that high person–organization fit predicts both job choice and work attitudes. This suggests that when newcomers adequately evaluate their fit with an organization, it helps them to better manage their future work attitudes.

Interestingly, much research on the question of person–organization fit asks: To what extent is such fit a function of the person, the situation, or the interaction between the two? Although strong theoretical arguments have been made in support of each position, an increasing volume of research suggests that both persons and situations matter, and that the interaction between the two determines individual task performance and organizations' longevity (Bowen, Ledford, & Nathan, 1991). Moreover, if institutional environments shape organizational structures and outcomes, what is the role of strategic choice in managing organizations (Beckert, 1999)? Building on theories in evolution and organizational ecology, Ghoshal and Lovas (2000) proposed that organizational leaders play a *major* role in shaping their companies' direction and outcomes. According to this view, organizations, through managerial foresight and personnel action, have limited, yet consequential, degrees of freedom to maneuver within their environments. In other words, top management and entrepreneurs bring timely interventions that guide and shape the outcomes that firms experience (Balkin, Markman, & Gomez-Mejia, 2000).

We propose that because knowledge and intellectual property are becoming more important than physical capital, individuals now exert stronger relative control over the management of their own careers and vocations than was true in the past. The fact that individuals seek opportunities for professional growth, along with increased job mobility, suggests that notions of *person–career fit* may be more practical than the concept of person–organization fit. Indeed, highly skilled persons find that it is more difficult to change lines of work than to change employers. Or as suggested by Neal (1999), workers are more likely to change employers without changing careers than seek out feasible lines of work while working for the same employer.

Person–organization fit, which is frequently assessed by the compatibility between organizations and their incumbents (Kristof, 1996), has important implications both for individual employees and their companies. To name just a few, compatibility between incumbents and their organization is commonly associated with job longevity, greater organizational commitment, better job performance, higher job involvement, improved employee attitudes, lower turnover and tardiness rates, higher levels of socialization and co-workers' likeability, and improved personal health and adaptation, (cf. O'Reilly et al., 1991). Schneider's (1987) attraction–selection–attrition (ASA) model holds that people are first attracted to organizations as a function of their perceived congruence between the institution and their own characteristics (Cable & Judge, 1997; Schneider et al., 1995). Then, a positive selection occurs when those hired also have the attributes the organization desires. And finally, once incumbents realize that there is no longer adequate fit with their work environment, they tend to leave. This indicates that people continuously shape, and are shaped by, their own workplace. On the basis of recent tests of the ASA model, which point out that organizations are indeed relatively homogeneous with respect to incumbents' personality attributes (Schneider, Smith, Taylor, & Fleenor, 1998), Van Vianen (2000) has suggested that a match between newcomers' characteristics and those of tenured incumbents also determines a good person–organization fit. Not surprisingly, congruence between persons and their organization is—at least to some extent—a function of similarity: the extent to which individuals share attitudes and values, demographic and social backgrounds, work ethics, and a host of other factors (e.g., professional interests, needs, aspirations, etc.).

To recap, research suggests that interactively, persons and their institutions affect attitudes, behaviors, and task performance; that job seekers are attracted to organizations whose mission and values are congruent with their own; that incumbents select job candidates who match their values and even background; and finally, that a lack of congruence between persons and organizations will result in high attrition or turnover rate (e.g. Chatman, 1991).

3. The intersection between person–organization fit and person–entrepreneurship fit

Shane and Venkataraman (2000) define entrepreneurship as a "scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited" (p. 218). Consequently, in the context of the high-tech industry, entrepreneurs are persons who evaluate, discover, and exploit technology-based opportunities. Successful entrepreneurs have the insight to match technical discoveries with buyers' needs and the stamina, knowledge, skills, and abilities to fruitfully deploy their offerings in the market. This suggests that the main, but not the only, tasks entrepreneurs embark upon while creating new companies range from transforming technological discoveries into marketable items, working intensely despite uncertainty and limited capital to establish market foothold, and fending off retaliatory actions from rivals in the marketplace. Another role that many entrepreneurs fulfill, particularly when launching high-growth ventures, is dealing with informed investors. While entrepreneurs deal with a small, homogeneous, and highly involved group of investors (e.g., business angels, venture capitalists, and bankers), incumbents are normally accountable to heterogeneous stockholders exhibiting diffused ownership.

An appreciation of the diverse roles that entrepreneurs fulfill is particularly apparent when considering the key differences between emerging and existing organizations. Indeed, a growing stream of research suggests that although entrepreneurial firms share much in common with established organizations, managerially and operationally, these two company types differ in important respects. To name several distinctions, entrepreneurial firms are substantially smaller and have fewer resources, their product line is limited and largely unknown, and they lack name recognition. That is, young firms suffer from the liabilities of smallness, newness, and legitimacy (Aldrich & Fiol, 1994). Entrepreneurship also entails considerably higher internal change and instability than that commonly observed among more established firms (Shane & Venkataraman, 2000). In fact, not only do entrepreneurs face market volatility, but also their very pursuits of "new combinations" (Schumpeter, 1934) actively instigate further turbulence. The processes of firm creation (either as an independently formed venture or as a spin-off new business unit within an established corporation) take place when teams or individuals successfully convert original discoveries into innovative products and services that benefit society (Arrow, 1962; Kirzner, 1997). While many established firms innovate and compete under adverse market conditions, entrepreneurial firms must—simultaneously—build their internal infrastructure. New ventures and established organizations also vary in terms of access to resources, available capability and assets, and knowledge capital, which again give rise to challenges characteristic of the liabilities of newness and legitimacy. These and other distinct differences explain why young and mature firms often use different operations, strategies, and tactics to achieve distinct and contrasting goals (Miller & Friesen, 1982).

Given the distinctions mentioned above, to what extent are persons who choose to create new organizations different from those who, instead, choose to work for established organizations? Several views suggest that entrepreneurs and nonentrepreneurs differ with respect to a number of personal characteristics (cf. Baron, 1998, 2000). Person–organization fit theory advises that the inclination and motivation to develop novel technology, products, or services that no one has perceived or harvested before and create organizational infrastructures to sell them are not the same even among persons enjoying similar levels of knowledge, skills, and ability. For example, many entrepreneurs—as compared to employees with comparable backgrounds and experience—earn lower income with lower earnings growth. Hamilton (2000) explains that such earning differentials reflect entrepreneurs' readiness to forgo high pay in exchange for the nonpecuniary benefits such as increased professional autonomy and a sense of personal control. Additionally, motivational paradigms such as goal setting theory suggest that individual performance in almost any context depends, to an important extent, on personal goals held by such persons (Locke & Latham, 1991). Building on the view that achievement is determined by personal variability in ability and motivation, Seligman (1991) adds that optimists are more likely to make the effort necessary to achieve their objectives. Additional evidence suggests that persons who create new companies and those who work for existing ones may perceive and react to risk differently (Busenitz, 1999; Busenitz & Barney, 1997). Entrepreneurs pursue businesses without fully knowing how the market will react and whether their new products or services will succeed. Since many first-movers and visionary innovators fail to capture the market only to see closely following second-movers reap these rewards (Tyagi, 2000), persons who create new companies shoulder substantially more risk than persons who run established companies.

Empirical studies also offer support for the view that where entrepreneurship is concerned, individual differences do indeed matter—different people may be better suited to exploit commercial opportunities or create new companies than others. According to learned helplessness theory, it is only when individuals believe that they can achieve a desired objective that they will make the effort necessary to attain that objective (Bandura, 1995; Seligman, 1991). Starting from this premise, Markman and Baron (under review) reasoned that because transforming new technological discoveries into attractive products or services is difficult, launching a new high-tech venture requires high conviction in one’s ability to overcome unavoidable challenges. In support of this reasoning, they found that patent inventors who start new ventures show significantly higher levels of perseverance and self-efficacy than do inventors who chose to work for established organizations. In fact, the annual earnings of the most perseverant inventors (top 20% of the sample) were more than US$35,000 higher than the annual earnings of the least persisting inventors (bottom 20%).

Perceptions and cognitive biases also shape how individuals cope with risks inherent in their decisions to start ventures. Research indicates that several biases such as *illusion of control* and the belief in the *law of small numbers* lowered perceived risk, suggesting that entrepreneurs might not realize that certain tasks, important to ventures’ longevity, are beyond their control (Simon, Houghton, & Aquino, 2000). Other evidence suggests that entrepreneurs and nonentrepreneurs may react to environmental complexity differently and may exhibit variability in their ability to cognitively reduce it to manageable levels. Studying the relationship between organizational complexity and information processing, McGaffey and Christy (1975) argued that since entrepreneurs try to reduce complexity associated with their new firms, they might differ from nonentrepreneurs in their cognitive processes. Meyer and Dean (1990) suggested that professional managers frequently replace founding entrepreneurs when the latter reach the “executive limit,” whereby they fail to adequately reduce complexity and thus limit the growth of their own venture. Other scholars found that entrepreneurs, more so than managers, tend to be *less* comprehensive in their decision styles (Fredrickson & Mitchell, 1984). Kaish and Gilad (1991) report that founders of young firms spent significantly more time searching for information and paid attention to different risk cues than did executives of established firms. In contrast, Busenitz and Barney (1997) found that entrepreneurs, as compared with managers, gathered significantly less information, utilized less formal techniques to analyze problems, and followed less rational decision processes. Others noted that entrepreneurs recognize patterns in their field and make quick decisions (Bird, 1988; Eisenhardt, 1989; Stevenson, Grousbeck, Roberts, & Bhidé, 1999). Finally, evidence confirms that shared or common cognitive scripts not only explain similarities in venture decision-making among entrepreneurs across cultures but also behavioral differences between entrepreneurs and nonentrepreneurs within countries (Mitchell, Smith, Seawright, & Morse, 2000).

Since accumulating evidence suggests that entrepreneurial firms are different than more established firms and that entrepreneurs are different—at least along certain personal dimensions and roles—from nonentrepreneurs, a related question arises: To what extent do successful entrepreneurs differ from less successful ones? It is to this question that we now turn.

4. Individual differences and entrepreneurial success

Person–organization fit theory advises that environmental forces and situations exert strong influence on entrepreneurial activities, but we agree with Shane and Venkataraman (2000) who point that individuals (and opportunities) constitute the core of the entrepreneurship phenomenon. Indeed, much research on the role of individual differences in business contexts distinguishes between "strong situations" that curtail much of the expression of human variation, and "weak situations" in which individual differences may have profound impact on the situation (Chatman, 1989). Since emerging ventures are just beginning to form and evolve as institutions, we view entrepreneurship and entrepreneurial undertaking as relatively "weak situations." Young firms are noticeably more open to change than mature ones and thus human variation seems to bear more pronounced weight. This also suggests that individuals who actually persist and so see their new ventures grow may wield strong and enduring influences on their environment including their emerging company.

Although it has been noted elsewhere that incorporating individual-difference factors can further management theory, research, and practice (Mitchell & Mickel, 1999), initial entrepreneurship research, often relying on ecological perspectives, questioned the utility of individual-difference dimensions and person–entrepreneurship fit. Further, early investigations seeking to differentiate entrepreneurs from other persons, or successful entrepreneurs from ones who are less successful in terms of individual-difference factors, were met with only modest success. Unfortunately, these preliminary failures led some to conclude that individual differences are largely irrelevant to entrepreneurship (Gartner, 1988; Shaver & Scott, 1991). However, the idea that individual differences do indeed matter remained compelling (Pfeffer, 1998), and currently, even economists suggest that firm performance and personal success are determined—to an important extent—by human variability rather than mere exogenous factors such as product differentiation, barriers to entry, or economies of scale (cf. Bhidé, 2000). For instance, recent findings show that young firms' performance and positive cash flow are more significantly related to their human and organizational resources (e.g., owner's industry experience and commitment, staff skills) than to their strategy (Brush & Chaganti, 1999). Others have suggested that entrepreneurial success and performance are a function of achievement motivation, risk-taking propensity, preference for innovation (Stewart, Watson, Carland, & Carland, 1999), and the capacity to adapt to and tolerate ambiguity (Bhidé, 2000).

Our review of recent entrepreneurship research designed to elucidate factors that influence both performance of new ventures and their market success identified individual-difference variables that seem to distinguish those who successfully start companies from those who do not. While these factors are diverse, our review centers on ones for which empirical evidence for links to entrepreneurial success are strongest: high *self-efficacy* (Chen, Greene, & Crick, 1998; Markman, Balkin, & Baron, under review), ability to spot and *recognize opportunities* (Busenitz, 1999; Kirzner, 1997), high personal *perseverance* (Markman & Baron, under review; Stoltz, 2000), high *human and social capital* (Honig, 1998), and superior *social skills* (Baron & Markman, 2000). Other important dimensions, such as the "Big Five" dimensions may also be important, but have not, as yet, been systematically investigated with respect to their potential role in the success of new ventures. In the following discussion, we review evidence regarding the impact of the variables listed above on entrepreneurs' success.

4.1. Self-efficacy

Self-efficacy refers to the extent to which persons believe that they can organize and effectively execute actions to produce given attainments (Bandura, 1997; Chen et al., 1998). As explained below, we propose that entrepreneurs high in self-efficacy will outperform those who are lower on this dimension. This rationale is based on social cognitive theory and a rich body of research in applied psychology showing that adaptive human functioning is motivated, regulated, and directed by the ongoing exercise of self-efficacy. According to the theory's triadic reciprocal causation model, self-efficacy operates as an interacting determinant to bidirectionally influence behaviors (Bandura, 1997). For instance, empirical research shows that high self-efficacy is fundamental in most human functioning, including efforts at overcoming substance abuse (Bandura, 1999), avoiding homelessness (Epel, Bandura, & Zimbardo, 1999), attaining high academic achievement and social influence (Bandura, Pastorelli, Barbaranelli, & Caprara, 1999), learning and mastering educational tasks (Bandura, 1993) and—most importantly from the present perspective—organizational performance (cf. Bandura, 1997).

Since self-efficacy positively affects diverse human functioning, we suggest that it will have similar consequences in the context of entrepreneurship. For example, individuals high in self-efficacy not only prefer challenging activities; they also display higher staying power in those pursuits (Bandura, 1997). Thus, it stands to reason that entrepreneurs who have high self-efficacy will outperform entrepreneurs with lower levels of self-efficacy. Similarly, because the incentive to act is highest when entrepreneurs believe that their actions (e.g., starting a new company) lead to attainable outcomes (e.g., successful venture), high self-efficacy is an important determinant of successful entrepreneurial behaviors. Interestingly, empirical research shows that self-efficacy successfully differentiates entrepreneurs from nonentrepreneurs (Chen et al., 1998). Others proposed that because the ability to start a new venture (i.e., obtain needed funding, recruit key partners and talented employees, and transform discoveries into salable products or services) requires high levels of conviction, personal success will be determined, to an important degree, by one's level of self-efficacy. Indeed, in a study of patent inventors, Markman et al. (under review) found that high self-efficacy was a significant predictor of personal success as measured by annual earnings and that high self-efficacy reliably distinguished between technical entrepreneurs and technical nonentrepreneurs (technical entrepreneurs being significantly higher on this dimension). Taken together, social cognitive theory and empirical evidence support the view that entrepreneurial success is significantly influenced by individual differences in self-efficacy.

4.2. Opportunity recognition

Individuals differ greatly in their abilities to capture, recognize, and make effective use of abstract, implicit, and changing information (Miller, 1996). Notions of opportunity recognition suggest that the ability to identify high-potential from low-potential opportunities and to spot obstacles before they become insurmountable would lead to the creation of superior ventures. Because newness and ambiguity of emerging markets create a powerful incentive for entrepreneurs to obtain superior information, we suggest that those who are more alert and better at monitoring and processing information would stand a better chance than those who are less adept on these dimensions. Our perspective is that individual differences in cognitive processes (e.g., mental models) may facilitate identification of previously unrecognized factors that can raise the likelihood of success of new businesses. We suspect that although most individuals scan their environment, successful entrepreneurs may be better at discovering opportunities embedded in that environment. Stated differently, alertness, or "lookout for hitherto unnoticed features of the environment" (Kirzner, 1997, p. 72), allows successful entrepreneurs to spot high-potential opportunities and thus use them to overcome commercial newness. Since new product development is inherently uncertain, lacking information regarding its use and market size exacerbates the uncertainties and heightens the chances of failure. The benefit of alertness is exemplified by research showing that failing to understand customers, designing cost-ineffective products, and disregarding intermediate and end-users' needs, were prescriptions for new-venture failure (Dougherty, 1992).

Past research on opportunity recognition and alertness has assessed entrepreneurs' behaviors, background, and cognitions. For example, Cooper, Folta, and Woo (1995) suggest that novice entrepreneurs tend to search for information *less* extensively than more seasoned entrepreneurs. Kaish and Gilad (1991), who assessed the number of reading materials or amount of time spent thinking about their business, report that entrepreneurs and managers scan and search for information differently. For example, entrepreneurs spent more time on nonverbal scanning and paid special attention to risk cues about new opportunities, whereas the executives tended to focus on the economics of the opportunity. Although a replication study failed to support the entrepreneurial alertness hypothesis (Busenitz, 1996), it still remains to be seen whether successful entrepreneurs are indeed more adept than less successful ones at identifying viable opportunities that exist "out there" in the environment. Thus, what the specific stimulus configuration of such opportunities is, and the processes (e.g., complex pattern recognition) through which successful entrepreneurs identify them, remains to be determined.

Shane (2000) found that individuals from different technological backgrounds who assess the same technological invention (i.e., 3DP) recognize and then develop different business opportunities. His study offers support for the view that contrasting personal and vocational backgrounds have important and lasting effects. Additional support for the view that individual differences play an important role in entrepreneurship is provided by Sarasvathy, Simon, and Lave (1999), who used think-aloud verbal protocols to show that entrepreneurs and bankers think about and process information concerning problems differently. These authors report that while entrepreneurs assume that risk is inevitable, focus on controlling outcomes, and take greater personal responsibility for these outcomes, bankers focus on controlling risk and avoiding situations, which involve higher levels of personal responsibility. Moreover, research in cognitive and social psychology reports consistent individual differences with respect to alertness (Miller, 1996). Clearly, only additional research can reconcile the debate on whether successful entrepreneurs are better able to spot opportunities than less successful ones. Nonetheless, because markets and technological innovations present diverse profit possibilities, it seems reasonable to suggest that individual differences in the ability to identify high-potential from low-potential opportunities do indeed play an important role in entrepreneurs' success.

4.3. Perseverance

Entrepreneurs try to create and sell "new combinations" and as such they encounter substantial uncertainty regarding market acceptability and buyers' demand. In fact, the more radical the innovation, the harsher the skepticism they must endure, and the more likely they are to incur additional costs stemming from efforts to educate investors and persuade disinclined buyers. Starting a new company also incurs many personal costs; entrepreneurs bear the opportunity cost of other alternatives, a liquidity premium for time and capital, risk stemming from uncertainty, financial and social perils, and other hazards due to rapid technological development and obsolescence (cf. Shane & Venkataraman, 2000). Creating a new company entails doing more with less; entrepreneurs suffer from limited resources, unfamiliar brand name, limited product offerings, and questionable access to markets. Inherent in such undertaking is a constant vulnerability to failure, precipitated by ambiguous conditions under which new firms are created. Thus, until success is achieved, entrepreneurs bear numerous disincentives, including unpredictable markets and unknown competitive rivals. Success often comes at a price of high financial, technological, and legal liabilities. Inseparable from risk of failure are the ambiguous conditions under which new firms are created; conditions precipitated by the nature of entrepreneurial work and technological innovation. This suggests that individuals who engage in venture formation incur, sometimes personally, substantial amount of financial and social adversity.

Research indicates that under challenging circumstances, individuals high in perseverance perform more adeptly, whereas individuals who fail to persevere not only perform inadequately, but also experience increased anxiety and negative affect (cf. Bandura, 1997). We noted above that to be successful, entrepreneurs must rise above numerous obstacles including working intensively despite very uncertain outcomes, establishing market foothold with frail economic power, fending off retaliatory actions from established and resourceful rivals, and overcoming liabilities of newness, smallness, and legitimacy. Entrepreneurs also endure very harsh private difficulties, such as personal and financial liabilities and periods of social isolation (cf. Baron & Markman, 2000). Since entrepreneurs encounter repeated obstacles with many uncertain outcomes, the ability to withstand and quickly overcome adversity would be an important personal advantage.

Learned industriousness theory states that depending on their history of persistent and effortful behavior, different individuals display contrasting levels of perseverance (Quinn, Brandon, & Copeland, 1996). Stoltz (2000), who studied personal resilience through what he terms the *Adversity Quotient* (AQ), assessed the AQ of over 100,000 persons from diverse organizations. On the basis of Stoltz's work, Markman and Baron (under review) suggested that our ability to handle adversity determines our success. They note that in the face of adversity, some tend to give up while others persist depending on their *explanatory styles*—the customary ways in which individuals explain setbacks and failures. Their study, which provided additional evidence that resilience is a major factor underlying success in entrepreneurial settings, reports two interesting findings. First, inventors who used the patents they were awarded to start or continue to build new companies had significantly higher AQ scores than those who did not use their patents for that purpose. Second, successful entrepreneurs had significantly higher AQ score than less successful entrepreneurs. More specifically, successful entrepreneurs, as measured by higher personal earnings, exhibited higher levels of perceived control over adversity they face and higher accountability for the outcome of the adversity (regardless of its origin).

While more research is certainly necessary, such studies suggest that perseverance in the face of business and technological difficulties may be more important than the idea or the opportunity itself. If this is so, then perhaps venture capitalists and corporate leaders could rely on measures of AQ to screen and identify technical people who will then be successful as champions of new business units. To recap, since perseverance reliably predicts personal effectiveness and performance under difficult circumstances, and since creating a new company is an ongoing challenge where success is a function of lasting personal persistence, perseverant entrepreneurs will tend to outperform those who are less persistent.

4.4. Human and social capital and social skills

In the past, means of production constituted a major share of an organization's tangible assets. Today, however, human talent is capital; talented persons carry within them, in their knowledge and expertise, important aspects of the means of production. Firms' capacity to compete is imbedded in incumbents' capability, education, and experience. Intellectual capital and talented labor force is now central to many business enterprises (Rivette & Kline, 2000) and so persons who have access to vital information become powerful agents of processes leading to business creation (Shane & Venkataraman, 2000). Human capital encompasses both abilities, which are influenced in part by genetic factors (e.g., intelligence, health, personality, attractiveness) as well as acquired skills such as education, job training, tenure, work experience, and interpersonal relationships (Shanahan & Tuma, 1994). Several arguments support the view that a high level of human capital is related to firm survival and growth (cf. Pennings, Lee, & Van Witteloostuijn, 1998). First, Gimeno, Folta, Cooper, and Woo (1997) found that even among firms of equal economic strength, survival was a function of variability in human capital. Research on the role of CEO characteristics shows that human capital affects firm performance (Boone, De Brabander, & Van Witteloostuijn, 1996). Similarly, since professionals endowed with a high level of human capital consistently deliver high-quality services, firms championed by such persons are better able to attract and retain clients and strategic allies. Finally, potential investors use human capital, such as professional credentials and accolades, as screening devices. To echo Arrow (1974), since persons successful in their domain have better access to their professional circles than do less successful persons, professional degrees and industry experience function as screening and filtering techniques to identify high-potential individuals.

Social capital, in contrast to human capital, refers to opportunities enabled by social structure (Maman, 2000); it is a proxy of resources made available through organizational positions, elite institutional ties, social networks and contacts, and relationships with others. Not surprisingly, human and social capital are complementary. High levels of social capital facilitate flows of knowledge and thus determine access to resources and may contribute to one's success (Nahapiet & Ghoshal, 1998). Accumulating research suggests that high social capital provides entrepreneurs with enhanced access to information and increased cooperation and trust from others. Indeed, a study of 1700 new business ventures in Germany reports a positive relationship between social capital and venture success (Bruderl & Preisendorfer, 1998). Moreover, entrepreneurs who possess high social capital (as based on extensive social networks, status, personal ties, and referrals) are more likely to receive funds from venture capitalists than entrepreneurs who are lower on this dimension (Cable & Shane, 1999). Honig (1998), who studied Jamaican entrepreneurs, reports that high social capital and high human capital (e.g., vocational and college education)—controlling for other factors—were positively related to business profitability. Others suggested that variability in human capital results in significant differences in the viability and longevity of new ventures (Boden & Nucci, 2000).

Research in applied and social psychology has repeatedly found that social skills—competencies that enable individuals to interact effectively with others—play a key role in many forms of social and professional interactions (Baron & Markman, 2000). Effective social skills can positively influence the outcomes experienced by individuals in many different contexts, including job interviews (Riggio & Throckmorton, 1988), performance reviews (Robbins & DeNisi, 1994), and even legal proceedings (McKelvie & Coley, 1993). For instance, in one large-scale study involving more than 1400 employees in a wide range of jobs, Wayne, Liden, Gran, and Ferris (1997) found that social skills were the single best predictor of job performance and promotion ratings. Social skills have also been found to influence negotiation outcomes (Lewicki, McAllister, & Bies, 1998), the frequency with which individuals engage in conflict and aggression (Baron and Richardson, 1994), and even personal happiness (Thomas, Fletcher, & Lange, 1997). Since entrepreneurs are embedded in a social context (Steier, 2000), we suggest that many of the tasks entrepreneurs must accomplish in order to succeed involve elements of socialization. Raising external capital, generating enthusiasm and commitment in employees, communicating effectively with people from a wide range of backgrounds, attracting effective partners and employees, developing business networks and relationships, establishing trust and legitimacy, and negotiating with others over diverse issues, are only some of the interactions entrepreneurs must initiate and manage. Since the creation of new companies entails the ability to work effectively with many constituencies in numerous contexts and under varying degrees of uncertainty, we propose that, ceteris paribus, proficiency in dealing with others may be a key ingredient in entrepreneurs' success.

Baron and Markman (2000), who conducted a study with entrepreneurs from two very different industries (cosmetics and high-tech), obtained support for the hypothesis that the higher the entrepreneurs' social skills, the greater their financial success. Their study reported that high accuracy in perceiving others (i.e., skill in social perception) was a significant predictor of financial success for both groups of entrepreneurs and that social adaptability (the ability to adapt to a wide range of social situations and to interact with individuals from many different backgrounds) was a significant predictor of financial success for entrepreneurs in the cosmetics industry. Their study implies that while high levels of human and social capital may be particularly crucial in facilitating access to resources, social skills might be particularly important once such access is attained—that is, during the building stages of a new venture. The success or failure of new organizations hinges in part, on entrepreneurs' ability to work together to commercialize their discoveries (e.g., Ensley et al., 2002). Moreover, a high level of social skills may assist entrepreneurs in several other ways—for example, in forming mutually beneficial strategic alliances with other companies (e.g., Gulati & Westphal, 1999), in securing orders from new customers, hiring desirable employees, and so on. Moreover, the fact that in entrepreneurial firms on-the-job and trial-and-error learning are important (Bhidé, 2000), suggests that hiring and investment decisions should be based, in part, on whether candidates have high human and social capital *as well as* sound social skills. Given the wide and positive impact social skills have on diverse human functioning, it is surprising that entrepreneurs, researchers, and investors have, until recently, been somewhat reluctant to recognize it as an important factors in such contexts. The foregoing discussion provides a foundation for our model of person–entrepreneurship fit and entrepreneurial success (Fig. 1).

Briefly, this model suggests that becoming an entrepreneur places people in a situation where certain individual-difference factors will be instrumental to their success: the greater the person–entrepreneurship fit, the higher the likelihood of entrepreneurial success. As drawn, the model presents a "snapshot" of the process at a single point in time, however, in essence, it incorporates both iterative and recursive interactions. That is, the model captures the nonlinear interplay among several individual-difference factors (e.g., self-efficacy, ability to recognize opportunities, personal perseverance, human and social capital, and superior social skills) in the context of tasks that entrepreneurs undertake (e.g., evaluate, deploy to market, and exploit technology-based opportunities via firm formation) to achieve entrepreneurial success, multifariously defined. We couched our arguments to suggest causality, but we acknowledge that in fact, the relationships illustrated are successively and reciprocally causal in nature. For example, as articulated throughout this discussion, people with high self-efficacy or human capital become more successful entrepreneurs at the same time that entrepreneurial success fosters stronger self-efficacy and raises one's human capital. Our model also suggests equifinality (Gresov & Drazin, 1997). There are multiple ways in which all or only some of the five elements discussed and their dynamic interplay may lead to high person–entrepreneurship fit and subsequently to entrepreneurial success. Finally, the model is not meant to be inclusive with respect to individual-difference factors;

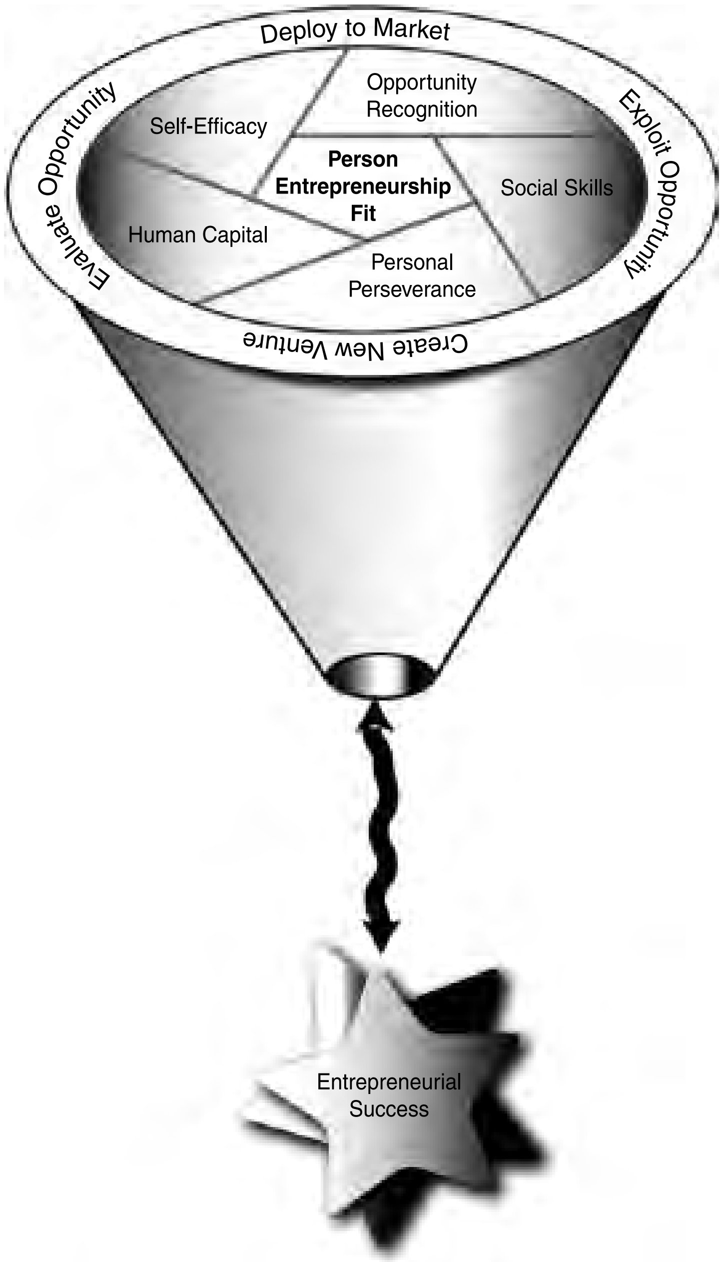

Fig. 1. Model of person–entrepreneurship fit and entrepreneurial success.

rather, other factors not discussed here probably also play a role with respect to person–entrepreneurship fit.

5. Discussion

We have proposed that an individual-difference perspective in assessing person–entrepreneurship fit has important implications for the field of human resource management. Specifically, we have suggested that to the extent that entrepreneurs are high on a number of distinct individual-difference dimensions relevant to the entrepreneurial role (e.g., self-efficacy, opportunities recognition, perseverance, human and social capitals, and social skills), the closer will be their person–entrepreneurship fit and, consequently, the greater their success. We noted that given comparable conditions, *not* all individuals, even if equipped with similar knowledge, skills, and abilities, are equally adept in recognizing opportunities and in harvesting them through the creation of new ventures. Since new ventures are conspicuously more open to change than established firms (i.e., they are "weak situations"), human variation, as reflected in specific individual-difference factors, may exert stronger effects on emerging firms than on mature ones. Moreover, since it is the entrepreneurs who create new ventures, we suggest that the role of individual-difference factors in person–entrepreneurship fit merits closer attention.

We examined potential relationships between research on person–organization fit and entrepreneurship, but more empirical and conceptual work is needed in order to confirm and extend our preliminary framework. For example, what does the future hold for person–entrepreneurship fit research and theory? What are the consequences for emerging firms that do not possess the capital and credibility to attract key personnel that mature corporations possess? Our view is in agreement with Bowen et al. (1991), who criticized traditional selection practices that ignore personal characteristics and merely target employees whose knowledge, skills, and abilities fit with clearly defined job requirements. While new "body parts" for an organization (e.g., helping hands, muscles, or brute physical force) may sometimes be appropriate for established and resource-rich organizations, such practices are particularly detrimental to emerging, resource-starved firms. These issues and related ones were not fully addressed here, and they remain open and should be carefully examined in future research.

Because a new business creation is multidimensional with diverse jobs, multitasks, and transient duties, our perspective complements emerging trends in selection models that reject theories of person–job fit (O'Reilly et al., 1991; Schneider et al., 1995; Van Vianen, 2000). While several personal and organizational characteristics were assessed, future studies should also test these and other dimensions of individual characteristics and organizational outcomes. For instance, we discussed the usefulness of person–career and person–entrepreneurship fit, but additional research is needed to empirically assess concerns regarding the utility of selection procedures in these contexts. In sum, people differ, and individual variance as it applies to person–entrepreneurship fit should, at the very least, be taken into account in such human resource functions as selection, recruitment, placement, and retention programs (Mitchell & Mickel, 1999). This human variability may also be of interest to scholars who focus on motivation, teamwork, and organizational design.

It has been noted elsewhere (cf. Van Vianen, 2000) that practitioners are reluctant to rely on person–organization fit measures. This is so, at least in part, because existing selection procedures are open to manipulation by applicants, subject to legal challenge, and as noted above, even good person–organization fit may not necessarily lead to enhanced firm performance. Nonetheless, Van Vianen (2000) found that job candidates are more likely to actually join an organization when their personal preferences fit with those of existing incumbents. Research on hiring suggests that interviewers can assess—with high levels of accuracy—applicant–organization value congruence, and that subjective fit assessments do impact hiring decisions (Cable & Judge, 1997). Given that in emerging ventures it is usually the founding team members who do the recruiting and the ones who, based on their reputation and personal attributes, try to attract new employees, entrepreneurs may have more influence on newcomers than they realize or suspect. Further, recruits are unable to fully assess the culture of the new organization until later in the socialization process. Again, this implies that newcomers' perceptions of founding teams—their personalities, attitudes, behaviors, reputations, and professional and social affiliations—carry heavy weight in evaluating subsequent fit. Interestingly, although many entrepreneurs are unaware of person–organization theory, they nevertheless rely on its principles. Silverman (1999) reports that small-business owners use ethnicity, race, and other identity cues as low-cost screening devices before they contract new employees, suppliers, and partners.

It is important to note that the individual-difference factors identified in our analyses are, in contrast to other aspects of personality, readily open to modification. Indeed, techniques for enhancing self-efficacy, alertness, personal perseverance, human and social capital, and social skills have been developed and used with considerable success in many contexts (e.g., Bandura, 1997; Stoltz, 2000). Seligman (1991) notes that cognitive styles like pessimism and helplessness can be changed through cognitive training techniques, whereby individuals can learn ways to overcome self-defeating beliefs. It seems possible that providing entrepreneurs with appropriate training in such skills and attributes might assist them in their efforts to exploit opportunities and launch new ventures. Since entrepreneurs' success and failure have significant ramifications not only for them personally, but their societies as well, efforts to provide them with skills serving to tip the balance in favor of success would appear to be well justified.

6. Conclusion

Although research on person–organization fit is diverse and rich (cf. Judge & Ferris, 1992; Kristof, 1996; Schneider et al., 1995), little effort has been made in the past to integrate its various conceptualizations, operationalizations, or measurement strategies with the field of entrepreneurship. In the present paper, we explored the potential contributions of a person–organization fit framework to address the basic question: "Why are some entrepreneurs more successful than others?" We proposed that person–entrepreneurship fit provides part of the answer. That is, the possession by would-be entrepreneurs of the skills, talents, abilities, and characteristics necessary for identifying opportunities and founding new ventures is one important component in their ultimate success. To the extent this suggestion is confirmed by future research, it would also appear that techniques could be developed for assessing the extent to which individuals are suited for entrepreneurial roles, just as standard techniques of personnel selection (cf. Smith, 1994) are used to determine whether, and to what extent, job applicants are suited for specific jobs. To the best of our knowledge, this is a new and potentially fruitful perspective on entrepreneurship.

While we made the point that the absence of research on person–organization fit as it applies to the study of entrepreneurship renders our understanding of new business formation incomplete, it is important to note that we in no sense imply that the effects of individual-difference factors are stronger or more important than other variables in determining entrepreneurs' success. In fact, we fully share the perspective, reflected in strategic management research, that many factors—including market forces, industry trends, new technological discoveries, and so on—interact in complex ways to ultimately determine the success of entrepreneurial firms, (cf. Shane & Venkatarman, 2000). What we wish to emphasize here is that one important contributor to entrepreneurs' success is indeed the extent to which they possess "what it takes"—the skills, abilities, and characteristics required for creating a new venture. When they do—that is, when such person–entrepreneurship fit is high—John Dos Passos' (1959) comment that: "People don't choose their careers; they are engulfed by them," may well ring true.

References

Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review*, *19*(4), 645–670.

Arrow, K. (1962). Economic welfare and the allocation of resources for invention. In R. Nelson (Ed.), *The rate and direction of inventive activity: economic and social factors* (pp. 609–626). Princeton, NJ: Princeton University Press.

Arrow, K. (1974). Limited knowledge and economic analysis. *American Economic Review*, *64*(1), 1–10.

Balkin, D. B., Markman, G. D., & Gomez-Mejia, L. R. (2000). Is CEO pay in high-technology firms related to innovation? *Academy of Management Journal*, *43*(6), 1118–1129.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, *28*(2), 117–148.

Bandura, A. (1995). Comments on the crusade against casual efficacy of human though. *Journal of Behavior Therapy & Experimental Psychiatry*, *26*(3), 179–190.

Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York: W. H. Freeman & Co.

Bandura, A. (1999). A sociocognitive analysis of substance abuse: an agentic perspective. *Psychological Science*, *10*(3), 214–217.

Bandura, A., Pastorelli, C., Barbaranelli, C., & Caprara, G. V. (1999). Self-efficacy pathways to childhood depression. *Journal of Personality and Social Psychology*, *76*(2), 258–269.

Baron, R. A. (1998). Cognitive mechanisms in entrepreneurship: why and when entrepreneurs think differently than other people. *Journal of Business Venturing*, *13*, 275–294.

Baron, R. A. (2000). Counterfactual thinking and venture formation: the potential effects of thinking about "what might have been". *Journal of Business Venturing*, *15*, 79–91.

Baron, R. A., & Markman, G. D. (2000). Beyond social capital: the role of social competence in entrepreneurs' success. *Academy of Management Executive*, *14*(1), 106–116.

Baron, R. A., & Richardson, D. R. (1994). *Human aggression* (2nd ed.). New York, NY: Plenum.

Beckert, J. (1999). Agency, entrepreneurs, and institutional change. The role of strategic choice and institutionalized practices in organizations. *Organization Studies*, *20*(5), 777–799.

Bhidé, A. V. (2000). *The origin and evolution of new business*. New York: Oxford University Press.

Bird, B. J. (1988). Implementing entrepreneurial ideas: the case for intention. *Academy of Management Review*, *13*, 442–453.

Boden Jr., R. J., & Nucci, A. R. (2000). On the survival prospects of men's and women's new business ventures. *Journal of Business Venturing*, *15*(4), 347–362.

Boone, C., de Brabander, B., & Van Witteloostuijn, A. (1996). CEO locus of control and small firm performance: an integrative framework and empirical test. *Journal of Management Studies*, *33*(5), 667–699.

Bowen, D. E., Ledford Jr., G. E., Nathan, B. R. (1991). Hiring for the organization. Not the job. *Academy of Management Executive*, *5*(4), 35–51.

Bruderl, J., & Preisendorfer, P. (1998). Network support and the success of newly founded businesses. *Small Business Economics*, *10*(3), 213–225.

Brush, C. G., & Chaganti, R. (1999). Businesses without glamour? An analysis of resources on performance by size and age in small service and retail firms. *Journal of Business Venturing*, *14*(3), 233–257.

Busenitz, L. W. (1996). Research on entrepreneurial alertness. *Journal of Small Business Management*, *34*(4), 35–44.

Busenitz, L. W. (1999). Entrepreneurial risk and strategic decision making: it's a matter of perspective. *Journal of Applied Behavioral Science*, *35*(3), 325–340.

Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: biases and heuristics in strategic decision-making. *Journal of Business Venturing*, *12*(1), 9–30.

Cable, D. M., & Judge, T. A. (1996). Person–organization fit, job choice decisions, and organizational entry. *Organizational Behavior and Human Decision Processes*, *67*(3), 294–311.

Cable, D. M., & Judge, T. A. (1997). Interviewers' perceptions of person–organization fit and organizational selection decisions. *Journal of Applied Psychology*, *82*, 546–561.

Cable, D. M., & Shane, S. (1997). A prisoner's dilemma approach to entrepreneur-venture capitalist relationships. *Academy of Management Review*, *22*, 142–176.

Chan, D. (1996). Cognitive misfit of problem-solving style at work: a facet of person–organization fit. *Organizational Behavior and Human Decision Processes*, *68*(3), 194–207.

Chatman, J. (1989). Improving interactional organizational research. *Academy of Management Review*, *14*(3), 333–349.

Chatman, J. (1991). Matching people and organizations: selection and socialization in public accounting firms. *Administrative Science Quarterly*, *36*, 459–484.

Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, *13*, 295–316.

Cooper, A. C., Folta, T. B., & Woo, C. Y. (1995). Entrepreneurial information search. *Journal of Business Venturing*, *10*(2), 107–120.

Dos Passos, J. (1959, October 25). People don't choose their careers; they are engulfed by them. *New York Times*.

Dougherty, D. (1992). A practice-centered model of organizational renewal through product innovation. *Strategic Management Journal*, *13*, 77–92.

Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, *32*, 543–576.

Ensley, M. D., Peterson, A. W., & Amason, A. C. (2002). Understanding the dynamics of new venture top management teams: cohesion, conflict, and new venture performance. *Journal of Business Venturing*, *17*(4), 365–386.

Epel, E. S., Bandura, A., & Zimbardo, P. G. (1999). Escaping homelessness: the influences of self-efficacy and time perspective on coping with homelessness. *Journal of Applied Social Psychology*, *29*(3), 575–596.

Fredrickson, J. W., & Mitchell, T. (1984). Strategic decision processes: comprehensiveness and performance in an industry with an unstable environment. *Academy of Management Journal*, *27*, 399–423.

Gartner, W. B. (1988). Who is the entrepreneur? Is the wrong question. *American Journal of Small Business*, *12*, 11–32.

Ghoshal, S., & Lovas, B. (2000). Strategy as guided evolution. *Strategic Management Journal*, *21*, 875–896.

Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, *42*(4), 750–783.

Gresov, C., & Drazin, R. (1997). Equifinality: functional equivalence in organization design. *Academy of Management Review*, *22*(2), 403–428.

Gulati, R., & Westphal, J. D. (1999). Cooperative or controlling? The effects of CEO–board relations and the content of interlocks on the formation of joint ventures. *Administrative Science*, *44*(3), 473–506.

Hamilton, B. H. (2000). Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *Journal of Political Economy*, *108*(3), 604–631.

Honig, B. (1998). What determines success? Examining the human, financial, and social capital of Jamaican microentrepreneurs. *Journal of Business Venturing*, *13*, 371–394.

Judge, T. A., & Ferris, G. R. (1992). The elusive criterion of fit in human resource staffing decisions. *Human Resource Planning*, *15*(4), 47–67.

Kaish, S., & Gilad, B. (1991). Characteristics of opportunities search of entrepreneurs versus executives: sources, interest, general alertness. *Journal of Business Venturing*, *6*, 45–61.

Kirton, M. (1976). Adaptors and innovators—a description and measure. *Journal of Applied Psychology*, *61*(5), 622–635.

Kirzner, I. (1997). Entrepreneurial discovery and the competitive market process: an Austrian approach. *Journal of Economic Literature*, *35*, 60–85.

Kristof, A. L. (1996). Person–organization fit: an integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, *49*(1), 1–49.

Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: new relationships and realities. *Academy of Management Review*, *23*(3), 438–458.

Locke, E. A., & Latham, G. P. (1991). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.

Maman, D. (2000). Who accumulates directorships of big business firms in Israel?: Organizational structure, social capital and human capital. *Human Relations*, *53*(5), 603–630.

Markman, G. D., Balkin, D. B., & Baron R. A. (under review). Inventors' cognitive mechanisms as predictors of new venture formation.

Markman, G. D., & Baron, R. A. (under review). Adversity quotient: bounce-back ability, innovation, and new business formation.

McGaffey, T. N., & Christy, R. (1975). Information processing capability as a predictor of entrepreneurial effectiveness. *Academy of Management Journal*, *18*(4), 857–863.

McKelvie, S. J., & Coley, J. (1993). Effects of crime seriousness and offender facial attractiveness on recommended treatment. *Social Behavior and Personality*, *21*(4), 265–277.

Meyer, G. D., & Dean, T. J. (1990). An upper echelons perspective on transformational leadership problems in high technology firm. *Journal of High Technology Management Research*, *1*, 223–242.

Miller, S. M. (1996). Monitoring and blunting of threatening information: cognitive interference and facilitation in the coping process. In I. G. Sarason, G. R. Pierce, & B. R. Sarason (Eds.), *Cognitive interference: theory, methods, and findings* (pp. 175–190). Mahwah, NJ: Lawrence Erlbaum Associate Publishers.

Miller, D., & Friesen, P. H. (1982). Innovation in conservative and entrepreneurial firms: two models of strategic momentum. *Strategic Management Journal*, *3*, 1–25.

Mitchell, T. R., & Mickel, A. E. (1999). The meaning of money: an individual-difference perspective. *Academy of Management Review*, *24*(3), 568–578.

Mitchell, R. K., Smith, B., Seawright, K. W., & Morse, E. A. (2000). Cross-cultural cognitions and venture creation decision. *Academy of Management Journal*, *43*(5), 974–993.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, *23*(2), 242–266.

Neal, D. (1999). The complexity of job mobility among young men. *Journal of Labor Economics*, *17*(2), 237–261.

O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: a profile comparison approach to assessing person–organization fit. *Academy of Management Journal*, *34*, 487–516.

Pennings, J. M., Lee, K., & Van Witteloostuijn, A. (1998). Human capital, social capital, and firm dissolution. *Academy of Management Journal*, *41*(4), 425–440.

Pfeffer, J. (1998). *The human equation: building profits by putting people first*. Boston, MA: Harvard Business School Press.

Quinn, E. P., Brandon, T. H., & Copeland, A. L. (1996). Is task persistence related to smoking and substance abuse? The application of learned industriousness theory to addictive behaviors. *Experimental and Clinical Psychopharmacology*, *4*(2), 186–190.

Riggio, R. E., & Throckmorton, B. (1988). The relative effects of verbal and nonverbal behavior, appearance, and social skills on evaluations made in hiring interviews. *Journal of Applied Social Psychology*, *18*(4), 331–348.

Rivette, K. G., & Kline, D. (2000). *Rembrandts in the attic*. Boston, MA: Harvard Business School Press.

Robbins, T. L., & DeNisi, A. S. (1994). A closer look at interpersonal affect as a distinct influence on cognitive processing in performance evaluations. *Journal of Applied Psychology*, *79*(3), 341–353.

Sarasvathy, D. K., Simon, H. A., & Lave, L. (1999). Perceiving and managing business risks: differences between entrepreneurs and bankers. *Journal of Economic Behavior and Organization*, *33*, 207–225.

Schneider, B. (1987). The people make the place. *Personnel Psychology*, *40*(3), 437–453.

Schneider, B., Goldstein, H. W., & Smith, D. B. (1995). The ASA framework: an update. *Personnel Psychology*, *48*, 747–773.

Schneider, B., Smith, D. B., Taylor, S., & Fleenor, J. (1998). Personality and organizations: a test of the homogeneity of personality hypothesis. *Journal of Applied Psychology*, *83*, 462–470.

Schumpeter, J. (1934). *Capitalism, socialism, and democracy*. New York: Harper & Row.

Seligman, M. E. P. (1991). *Learned optimism*. New York: Knopf.

Shanahan, S. E., & Tuma, N. B. (1994). The sociology of distribution and redistribution. In N. J. Smelser, & R. Swedberg (Eds.), *The handbook of economic sociology* (pp. 733–765). Princeton, NJ: Princeton University Press.

Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, *11*, 448–469.

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, *25*, 217–226.

Shaver, K. G., & Scott, L. R. (1991, Winter). Person, process, and choice: the psychology of new venture creation. *Entrepreneurship Theory and Practice*, 23–42.

Silverman, R. M. (1999). Ethnic solidarity and black business: the case of ethnic beauty aids distributors in Chicago. *American Journal of Economics and Sociology*, *58*, 829–841.

Simon, M., Houghton, S. M., & Aquino, K. (2000). Cognitive biases, risk perception, and venture formation: how individuals decide to start companies. *Journal of Business Venturing*, *15*(2), 113–134.

Smith, M. (1994). A theory of the validity of predictors in selection. *Journal of Occupational and Organizational Psychology*, *67*, 13–31.

Steier, L. (2000). Entrepreneurship and the evolution of angel financial networks. *Organization Studies*, *21*(1), 163–192.

Stevenson, H. H., Grousbeck, H. I., Roberts, M. J., & Bhidé, A. (1999). *New business venture and the entrepreneur* (5th ed.). Boston, MA: Irwin McGraw-Hill.

Stewart Jr., W. H., Watson, W. E., Carland, J. C., & Carland, J. W. (1999). A proclivity for entrepreneurship: a comparison of entrepreneurs, small business owners, and corporate managers. *Journal of Business Venturing*, *14*, 189–214.

Stoltz, P. G. (2000). *Adversity quotient at work*. New York, NY: HarperCollins Publishers.

Thomas, G., Fletcher, G. J. O., & Lange, C. (1997). On-line empathic accuracy in marital interaction. *Journal of Personality and Social Psychology*, *72*(4), 839–850.

Tyagi, R. K. (2000). Sequential product positioning under differential costs. *Management Science*, *46*(7), 928–940.

Van Vianen, A. E. M. (2000). Person–organization fit: the match between newcomers' and recruiters' preferences for organizational cultures. *Personnel Psychology*, *53*, 113–149.

Wayne, S. J., Liden, R. C., Graf, I. K., & Ferris, G. R. (1997). The role of upward influence tactics in human resource decisions. *Personnel Psychology*, *50*, 979–1006.

Entrepreneurship Strategy

A report on NGO strategy for entrepreneurship screening and development in Masiphumelele.

A project of the Mann Center for Ethics and Leadership.

With support from the following organizations: