EVALUATING THE WORLD’S LARGEST ENTREPRENEURSHIP EDUCATION PROGRAM

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ABSTRACT

Focus of the paper
An entrepreneurial training program called Start and Improve Your Business (SIYB) is supported by the International Labour Organization. SIYB is a United Nations program developed in Sweden with the aim of developing entrepreneurial and business skills. It operates in more than 80 countries and is arguably the largest and longest lived such program in history (Samuelsen, 2003). However, there is no rigorous empirical evidence supporting the efficacy of this program.

Botswana is one of the many countries running the SIYB program. SIYB was introduced in Botswana in 1983 but has only been evaluated once – and poorly - in 1993. So, the world’s largest entrepreneurial training program continues to run in Botswana at great expense despite the absence of hard evidence concerning its efficacy.

Due to a number of factors including an excellent database Botswana provides the ideal test environment for assessing the efficacy of both the specific SIYB program and a range of generic issues pertaining to entrepreneurship education in developing countries.

The study articulated in this abstract forms part of a research project that seeks to examine the efficacy of the SIYB program in the wider context of understanding the issues relevant to entrepreneurship education in developing, as distinct from developed, countries.

Methodology
According to Westhead and Storey (1996), the relationship between participation in management training and small firm performance has not been established. The present study is part of a larger research project that involves multiple evaluations of the effectiveness of the SIYB programme. Various techniques have been used to ascertain whether SIYB participants performed better than non-participants and this paper presents the results of group comparison results conducted using MANOVA techniques.

Procedure
Questionnaires were developed, pre-tested and refined. Many of the questions were formulated based on the SIYB training materials. A self-efficacy measure was adapted from Jerusalem and Schwarzer (1992). The questionnaire addressed the following measures: entrepreneurial cognition, enabling business environment, achievement of business skills and business performance.

Two initial groups were identified for participation in the study. The first group consisted of entrepreneurs who participated in SIYB program. The sample was selected randomly and a total of 91 responses were useable. The second group consisted of 110 useable randomly selected non-SIYB participants.
Respondents were classified into four sub-groups: (1) participants who did not take part in any training; (2) participants who did other training; (3) participants who did other training and SIYB, and (4) participants who did SIYB only. MANOVAs were conducted to explore the program effects for the different training groups.

Results and Implications

The results of the analyses indicate that there is no evidence of program effects in a range of outcomes between the different groups. In particular, there were no significant differences on a composite measure of business performance. The results indicate only small differences between groups on many important measures. However, the group of those who participated in the SIYB program scored significantly higher on measures of ‘ability to reconcile family and business’ and ‘ability to adapt to business needs’ than those who did not attend the course.

Overall, the study makes a useful contribution to three fields: program evaluation research; entrepreneurship education; and economic development. Given the rarity of both theoretical curriculum models and structured measurement frameworks in the relevant literature, a particular contribution of this study was the establishment of a measurement framework, operationalized from an ideal, developing country entrepreneurship education curriculum model. It is suitable for evaluating a wide variety entrepreneurship education programs in a wide variety of contexts.

INTRODUCTION

In recent years, the relationship between training and small firm performance has been the subject of heated debate. Stakeholders in training institutions, including academics and policy makers, have sought to find a relationship between the training and performance of firms (Patton, Marlow and Hannon, 2000). However, the relationship between participation in management training and small business performance is currently not well established and a number of criticisms have been made regarding the research methodology employed (Westhead and Storey, 1996). Overall, the literature on the relationship between training and performance is inconclusive (Westhead and Storey, 1996; 1997).

The primary focus of this paper is to present part of the results of the study undertaken in Botswana, which was carried out to determine the efficacy of the Start and Improve Your Business program. The paper starts by giving a brief introduction of the Start and Improve Your Business Program as well the introduction of the research location with a brief justification for the site selection. The paper also provides existing literature about entrepreneurship education, which is followed by the methods used in data collection and the MANOVA results.

Section 1: Problems in general entrepreneurship literature

Entrepreneurship is a difficult concept to define in clear terms. It seems that despite a large number of studies, the definition of entrepreneurship and/or an entrepreneur continues to generate debate (Low, 2001). The body of entrepreneurship research is stratified, eclectic and divergent; it generates many theories and frameworks (Murphy, et al., 2006). The European Commission’s Green Paper on Entrepreneurship in Europe (EC, 2003) considers that entrepreneurship is multifaceted and can manifest itself in diverse contexts and in all kinds of organisations. The issue of ‘complex multi-faceted concept’ has also been alluded to by various researchers (Davidsson and Wiklund, 2000; Low, 2001; Shane and Venkataraman, 2000; Venkataraman, 1997).

However, the entrepreneurship field has been criticised for having an ill-defined paradigm (Shane and Venkataraman, 2000) and too many stakeholders with conflicting agendas and interests (Formaini, 2006; Harrison and Leitch, 2005; Jones and Spicer, 2005). To date, most researchers have defined the field solely in terms of who the entrepreneur is and what he or she does (Venkataraman, 1997). This section focuses on the problems and controversies surrounding the definition of ‘entrepreneurship’ and illustrates some of the difficulties created by this lack of definitional clarity.

In common usage the word entrepreneurship is linked to enterprise creation, but the term has a wider application (Martins et al., 2007). Its first use dates back to the 17th century and it is derived from the French verb *entreprendre*, which means to undertake a project or an activity. Today, it can be used
more specifically to identify individuals who stimulate economic progress by finding new and better ways of doing things (Martins et al., 2007).

Entrepreneurship, entrepreneurs and the creation of new business are very important to economic prosperity and as a result there is a high volume of literature pertaining to entrepreneurship, entrepreneurs and new venture creation. However, the words ‘enterprise’ and ‘entrepreneurship’ are used in a number of contradictory ways in this body of research (Chell, 1991). This poses a major difficulty for reviewing entrepreneurship literature. For example, enterprise for some relates to business or business entrepreneurship, which in practice can refer to activities such as starting a business, being in business, developing a business or even the business itself. For others it relates to personal characteristics or a style of behaviour that can apply in a wide variety of contexts, including business, individual attitudes and skills that lead individuals to exhibit innovative and creative behaviours, which may include business entrepreneurship (Bridge, O’Neill and Cromie, 2003).

In some cases researchers of entrepreneurship use the same word to mean entirely different things. Some use these terms in reference to the exercise of enterprising attributes, such as risk-taking (Dollinger, 1995). Stevenson et al., (2000:6) proposed that the value of entrepreneurship resides in the “pursuit of opportunity beyond the resources you currently control.” They contend that entrepreneurs are continuously looking for new opportunities and they mobilize the necessary resources in order to achieve their enterprising goals.

In contrast, others use the terms to refer to people who adopt specific roles or engage in specific behaviors, such as owning or starting one’s own business (Allison, Chell and Hayes, 2000). The terms ‘enterprise’, ‘entrepreneurship’ and ‘small business’ are also often used interchangeably, but as Bridge et al., (2003) argue, small business may not demonstrate much enterprise at all. Carree and Thurik (2005) argue that entrepreneurship and small enterprises are related, but are far from synonymous. They contend that entrepreneurial activity can occur in both small and large enterprises as well as outside the business world. Small enterprises can also be vehicles for the introduction of new products and processes that may change industry or bring rewards to the people who created them (Martins et al., 2007). Shane and Venkataraman (2000) argue that entrepreneurship is about the discovery, evaluation and exploitation of opportunities.

The differences between the various definitions of entrepreneurship create inevitable contradictions, as there is still little consensus about defining the notion of entrepreneurship and entrepreneurs (Bygrave 1989; Cunningham and Lischeron, 1991). Whether managers with ‘entrepreneurial personalities’ within large corporations can be classified as entrepreneurs or whether small business owners who have inherited their businesses from family members and have no entrepreneurial inclinations can be classified as entrepreneurs are among the many questions encountered across when reviewing entrepreneurship literature. Such lack of definitional and theoretical clarity creates difficulties that make a literature search in this field very problematic.

Section 2: Start and Improve Your Business Program: A global perspective

Historical overview

Improve Your Business (IYB) is an International Labour Organization’s (ILO) program. It originated from business management training materials called “Look After Your Firm” that were developed by the Swedish Employer’s Confederation in the late 1960s (Samuelsen, 2003). During the late 1970s, the Swedish International Development Agency (SIDA) funded an ILO project that adapted the Look After Your Firm materials to suit the needs of the small entrepreneurs in developing countries (Ridsdale, 1996). The new material was then named Improve Your Business (IYB). At the same time, the ILO developed a specific training methodology, which was based on participatory learning and with an action-oriented approach. The IYB training materials and methodology together became the IYB program (ILO Report, 1993).

The IYB was introduced in several African countries in 1983 (ILO Report, 1993). During the same year, the Regional Project Office for Eastern Africa was established in Nairobi, Kenya. This project is funded by SIDA. The project office introduced IYB in Botswana, Ethiopia, Kenya, Lesotho, Mauritius, Mozambique, Tanzania, Uganda, Zambia and Zimbabwe between 1983 and 1988. In 1988,
the project office moved to Zimbabwe, where it is still based. In the years following this move, IYB was also introduced to Angola, Malawi, Namibia, Swaziland and South Africa.

In 1996, a business start-up package, Start Your Business (SYB) was introduced to cater for the needs for the business start-ups and it was introduced on a pilot basis in Uganda, Zambia and Zimbabwe. It was later introduced in other countries. SYB was then linked with IYB to form Start and Improve Your Business (SIYB) (ILO Report, 1993). IYB is a management training program for owners and managers of small businesses and it introduces the basic principles of management to entrepreneurs. The SYB component is aimed at prospective entrepreneurs who have business ideas and want to start new businesses.

The main aims of the program are to contribute towards the economic growth of the participating countries as well as the creation of sustainable employment. Its immediate objectives are to enable small entrepreneurs to start and grow sustainable businesses and to create sustainable employment for others in the process (ILO Report, 2003).

Over the years, the integrated program has been introduced in other African countries, in Latin America and in other countries globally. It currently operates in more than eighty countries in many regions of the world such as West Africa, eastern and southern Africa, south-eastern and south-central Asia and Pacific, central Asia, Middle East, central Latin America, the Caribbean and Eastern Europe. During the last decade, more than 100,000 entrepreneurs, thousand of trainers and hundreds of small development organizations around the world have participated in SIYB (Samuelsen, 2003).

**Target group**
The program has two target groups; the immediate program beneficiaries and the ultimate program beneficiaries. The immediate beneficiaries are the local Business Development Services (BDS) organizations and the trainers working for them. In addition, the ILO typically seeks collaboration with other agencies such as employers’ organizations, trade unions and government agencies for them to implement the Program.

To qualify for collaboration in the SIYB Program, BDS organizations should meet the following criteria:

- Have a proven record in or clear potential to provide BDS for small enterprises, particularly in training and follow up activities
- Have, or have access to financial resource to carry out training
- Be willing to integrate SIYB into their training providers
- Be willing to cooperate with other SIYB training providers
- Preferably, have a geographical spread of operations
- Be willing to network with organizations providing other types of assistance to entrepreneurs, such as technical training and access to credit (ILO Report, 1993).

The above criteria are important for the integration of the SIYB Program at the organizational level for sustainability (ILO Report, 1993). More specially, after the introduction of a program to a given country, local BDS organizations are given the mandate to independently implement the program with minimal supervision and support from ILO.

The ultimate beneficiaries of the program are small – scale entrepreneurs who either want to start or grow their own businesses. The ultimate beneficiaries are contacted via local BDS organizations. ILO builds capacity within BDS organizations to enable them to train and support entrepreneurs using the SIYB approach, methodology and materials. To fully benefit from SIYB training, entrepreneurs applying for SIYB training courses should:

- Be willing and able to contribute towards the cost of training
- Be internally motivated to attend the training
- Be able to read and write in the language of training
- Be able to make simple calculations
- Be interested in starting a business
- Have access to technical skills that are relevant for the planned line of business
Be in business if they want to attend the IYB program

Institutional Approach
The SIYB Program was designed around an institutional approach (ILO Report, 1999). Based on the assumption that local SIYB partner organizations are important for the development of the national economies, the SIYB Regional Project Office builds the capacity of local BDS organizations in participating countries to effectively and independently implement SIYB training and related activities. The institutional approach of the program enables the SIYB Program to multiply its capacity to reach as many small-scale entrepreneurs in large numbers (ILO Report, 1999).

The SIYB Program also uses a multiplier strategy (ILO Report, 1999). Rather than directly training entrepreneurs in the participating countries, the ILO–SIYB Project Offices train SIYB Master Trainers in the Participating countries. In turn the Master Trainers train SIYB trainers, who are responsible for training entrepreneurs in the different packages. Some of the trainers are employed within BDS organizations while others are independent, private trainers (ILO Report, 1999).

THE SIYB TRAINING OF TRAINERS (TOT) PROGRAM
One way of building capacity within BDS organizations to effectively and independently implement SIYB training and related follow-up activities is through training of SIYB trainers. Once an organization is selected as a partner organization in the SIYB Program it nominates candidates for TOT seminar. SIYB trainers are the heart-piece of the program and form the driving force behind entrepreneurial activities (ILO Report, 1999). A rigorous selection criteria and process is therefore applied and followed in selecting suitable trainers. Selected candidates attend a two-week TOT seminar. Seminar participants are expected to plan and conduct SIYB training immediately upon returning to their organizations. They are assisted in the process through technical back-up support of the Master Trainers. TOT participants who successfully complete the training and conduct entrepreneurial activities, including follow-ups, are then certified as competent SIYB trainers (ILO Report, 1999).

THE SIYB TRAINING OF MASTERS TRAINERS (TOMT) PROGRAM
SIYB trainers who are highly motivated and have a demonstrated track record in training entrepreneurs are encouraged to apply for the Training of Master Trainers’ (TOMT) program. The objective of the Master Trainers’ Program is to enable participants to effectively implement the various aspects of the SIYB Program in their respective countries. Selection for the Master Trainers also follows a rigorous process to ensure that the most suitable candidates are trained. This is because Master Trainers form the backbone of the SIYB program. It is through the Master Trainers that the SIYB Program can be made suitable. Master Trainers are responsible for marketing the SIYB Program, selecting new partner organizations as well as training and developing trainers.

It is essential for any training program to assess and evaluate the extent that the program is meeting its objectives. Evaluations of management training programs have generally raised questions like “do we get value for money?” (Harper and Finnegan, 1998), “Why is the link between management training and small firm performance so weak?” (Westhead and Storey, 1996) and “Are they cost effective?” (Bennett, 1994). Hence there is need for the evaluation of the SIYB program.

The SIYB impact assessment tool has been designed to evaluate the impact of training on the entrepreneurs and their enterprises (ILO Report, 2004). Methods and tools for data collection as well as sample size vary from SIYB operating regional areas. However, the systems for monitoring and evaluation of the impact have been standardized for ease of comparison of results (Samuelsen, 2003). The most important performance indicators of SIYB that are used globally are quality of training, business start up, business improvement and contribution to job creation (ILO Report, 2004).

The existence of quality data on the SIYB program makes Botswana an ideal country in which to conduct a systematic, quantitative program evaluation of SIYB. Hence, a brief background of Botswana is important for us to appreciate the environment which the program operates.
Section 3: A brief background on Botswana

Botswana is a landlocked country in southern Africa. It shares boarders with Zambia in the north, Zimbabwe in the east, South Africa in the south and south-east and Namibia in the west. The population of Botswana is a little above one and half million, of which about 24% live in urban areas (Botswana Statistics Report, 2004).

Since Botswana’s independence in 1966, it has achieved remarkable growth in economy, socio-political stability and education (Briscoe, 1996). The country’s economy is highly dependent on the mining and beef industries for its income. The discovery of diamonds has turned Botswana into the middle-income category; however the country still faces the problem of economic diversification, employment creation, income distribution and poverty. To feed its population of approximately 1.7 million, Botswana depends highly on foreign markets for the import of basic goods.

To alleviate the problem of dependency on the proceeds of diamonds and beef, the government of Botswana has put in place programs aiming to develop indigenous entrepreneurship in the country. Like any other developing country, organizational and managerial skills are considered to be crucial bottlenecks to entrepreneurial development in Botswana. Without such skills, indigenous entrepreneurs are unable to take advantage of opportunities or to advance technical change seen to be more important than capital inputs (Jones-Dube, 1984). The major obstacle to economic development in Botswana is not so much the shortage of capital, but the shortage of skill and knowledge needed to mobilize, organize and coordinate capital and other resources of production.

The crucial role of entrepreneurs as the productive resource that coordinates and organizes the others is indicated by Lewis (1954, in Jones-Dube, 1984) who pointed out that, to lend money to entrepreneurs who lack managerial capacity is merely to throw it down the drain. Lewis further affirmed that the main deficiency of local enterprise is not capital but knowledge and experience. Botswana, like many developing countries, has been spending a lot of money on indigenous entrepreneurs with the aim of contributing towards economic growth and employment creation.

The effort of the Government of Botswana to develop indigenous entrepreneurship dates back to 1974 with the formation of the Botswana Enterprise Development Unit (BEDU). BEDU was formed to assist in the development of technical skills and the provision of advisory services to entrepreneurs. Thereafter, various agencies and programs aimed at assisting indigenous Batswana entrepreneurs were introduced and the SIYB is one of such programs.

SIYB in Botswana

The IYB was introduced in Botswana in 1983 while SYB was introduced in 1997 to form SIYB (SIYB bulletin, 1998). The Ministry of Trade and Industry is the national focal point and the University of Botswana is the national training institution for the Master Trainers. SIYB Botswana is under the Regional Project Office for Eastern and Southern Africa, which is based in Zimbabwe. This entire international SIYB project was, and still is, funded by SIDA. However, the Botswana project was initially funded by the International Labour Organization, but it is now fully funded by the Botswana Government.

The Ministry of Trade and Industry is charged with the implementation of Small and Medium Entrepreneur’s (SME) policies and programs. The Department of Industrial Affairs within the ministry has a division called Integrated Field Services (IFS), which is responsible for entrepreneurship training in the country. The IFS is responsible for coordinating SIYB activities in the country.

The Project office is responsible for training the Master Trainers who in turn train the Trainers on how to train entrepreneurs. Although the IFS is in charge of the SIYB training in the country, there are other collaborating/partner organizations that are engaged in the training of SMEs. In the year 2000 there were about twelve SIYB collaborating organizations (ILO Report, 2001). The University of Botswana has been responsible for organizing and training in the SIYB Training of Trainers seminars from 1997 to date.

Just like in other countries where SIYB training operates, TOT seminars in Botswana run for weeks. In these seminars, trainers are introduced to the methods and methodologies of the program. They are expected to plan and conduct SIYB training within two months after completion, when they are
Trainers are also expected to conduct follow up sessions on their clients during which further assessment is conducted and certificate of competent awarded upon satisfactory performance.

Although efforts to get the Botswana SIYB impact assessment report have not been successful, the SIYB Achievement and Experiences Worldwide Report states that the first SIYB evaluation in Botswana was in 1993, ten years after the introduction of the program, and there has not been another impact evaluation thereafter (Samuelsen, 2003).

Only three evaluation questions regarding SIYB Botswana were identified from the SIYB Achievement and Experiences Worldwide Report (cited in Samuelsen, 2003). They are as follows:

1. What do the participants think of the courses?
   IYB participants in Botswana appreciated the program and only a minor share (5%) expressed dissatisfaction with teachers.

2. What did the participants learn from the courses?
   Limitations were identified in terms of actual learnt business management skills. It was revealed that only half of the participants learned about 50% of the content of the program and the remaining half of the participants learned much less. Approximately 30% were judged to have left the course without having gained new insights.

3. Do participants apply the new skills on the job?
   The results indicated that those who learn the IYB message often apply their knowledge.

Section 4: Evaluation of entrepreneurial training programs

In addition to articles dealing with evaluation of SIYB programs, articles evaluating other entrepreneurial training programs such as Small Business Development Centres (SBDC) were reviewed.

Small Business Development Centres (SBDC) in the United States

Business development services in the United States refer to all activities set up by development agents to help small business people start or improve their businesses. The services include training, technology transfer, marketing and business skill development. The SBDC program was established on an experimental basis in 1977 in the US (Chrisman, Hoy, Robinson Jr. and Nelson, 1985). Its purpose was to fill an unmet need for staff specialists and planning consultants in small firms. The centres developed over time and are now in almost every state in the US and provide free managerial planning consultation to small business (Chrisman et al., 1985). A lot of work has been done to determine the impact of SBDC consulting activities in the US (Chrisman, et al, 1985; 1987); Lang and Golden, 1989; McMullan, Chrisman and Vesper, 2001).

A paper by Chrisman et al., (1987) reveals the results of the impact of SBDC consulting services in the states of Georgia and North Carolina in the US. Their study was one of the first systematic attempts to determine the impact of SBDC and to form the standardized method for evaluating state-wide SBDC programs (Chrisman et al., 1987). It was conducted between 1982 and 1983 by telephone and mail surveys. Three hundred and twenty seven of the 583 small businesses that had used the consulting services between October 1, 1980 and July 31, 1981 were surveyed. A comparison of performance before and after assistance was conducted. Participants were asked to provide information about gross sales, number of employees and net income for the years before and after assistance was received (Chrisman et al., 1985; 1987). The results from the evaluation indicate that, on average, small businesses experienced improved economic performance (based on percentage increases in sales, employment and profits) over non-SBDC clients. Their findings indicated that SBDC programs at the two US states were administered in a cost effective manner.

The work of Chrisman and his colleagues was a breakthrough for the US states where the SBDC program operated. However, the method used to calculate the impact of the program has been highly criticized by Elstrott’s (1987). He attempted to replicate their study in the state of Louisiana and the quantitative data that he collected indicated impressive sales and employment gains for the SBDC firms. However, Elstrott’s research was not completed because he lacked an acceptable control sample (i.e. non-SBDC clients). Nevertheless, Elstrott’s raised concerns about Chrisman et al.’s work as they did not perform statistical tests to see whether their client sample was representative of the entire client
population. In response to Elstrott’s criticisms, Chrisman et al., argued that Elstrott’s decision to challenge the accuracy of their findings might have been related to the fact that he could not obtain an acceptable control sample. They however noted the need to improve their methodology.

In another study, Lang and Golding (1989) analysed the operational efficiency of Kentucky SBDCs as measured by counselling contacts, attendee training and total costs over a three year period. They used a mathematical programming model called Data Envelopment Analysis Method (DEA). The model relies heavily on an efficiency measure and specifically evaluated the efficiency of resource utilization by the centres. The study was longitudinal and the data used was from three fiscal years (1985-87). While the overall results of this analysis were supportive of SBDC effectiveness, they found that four of the SBDCs were inefficient at one time or another during the period of their investigation.

**Program Evaluation**

Generally, organizations perform evaluation in order to support the achievement of their goals. Systematic evaluation is important for all organizations, and it is even more so in educational and training institutions. In their review of major evaluation studies, Guttentang and Saar (1977, in Calder (1994) drew attention to the fact that education is one of the most highly researched evaluation fields. It is important for educational and training institutions to have proper evaluation systems in order to be able to review their performances and modify the implementation of their programs. The determination of the key points to be evaluated is crucial in any teaching or training institution and it should be done in such a way that it matches with the goals of the institution (Calder, 1994). Although the overarching aims of entrepreneurial educational and training programs are related to the provision of learning opportunities, these institutions also have diverse range of subsidiary goals. Hence the evaluation of such programs is not usually clear-cut straightforward activities (Calder, 1994).

**METHODS**

The initial stage of the research consisted of an extensive review of literature in the fields of entrepreneurship. The review guided the formulation of the conceptual framework, which led to the research propositions and hypotheses. From the constructs distilled from the literature, the preliminary design of the questionnaire was structured. Questionnaires were the primary research tools. They were pre-tested with a sample of 20 that comprised business people who had undergone training and those who had not, as well as entrepreneurship educators and trainers. Further refinements were made after pre-testing. Particular attention was paid to ensure that the language used in the questionnaires was appropriate to the respondents and English was appropriate as the language of the questionnaire. It is worth noting that although Botswana has a native language (Setswana), English is an official language and all respondents could competently communicate in English. Data analysis was quantitative. The final stages involved data entry, analysis and discussion of the results, of which some are presented below.

**Data Collection**

Two subgroups were identified from Molepolole, one of the major villages in Botswana, for participation in the study. The first group consisted of the Integrated Field Services (IFS) assisted entrepreneurs who were indigenous Botswana who had been through SIYB program.

The list of IFS registered clients constituted the sampling frame and the sample was randomly selected from the list. One hundred and seventy five entrepreneurs (50% of the population) were selected for the study. Out of the sampled number, a total of 91 completed questionnaires were returned, representing a response rate of 52%. This sample of respondents accounted for 26% of the total number of entrepreneurs on the database.

The second group consisted of non-IFS assisted or independent Batswana small and medium entrepreneurs. These were indigenous Batswana who owned small and medium enterprises and were not registered with IFS and had never undertaken SIYB courses. A list of licensed and registered entrepreneurs in Molepolole was used for sampling. The list, which indicated that there were about one thousand small and medium scale businesses in Molepolole, was obtained from the Kweneng District Council’s licensing department.
The aim was to use this list for sampling of non-IFS assisted entrepreneurs. However, most of the businesses were not at the locations that were stated on the list; they had either closed or moved to different locations without the knowledge of the local authorities. Drawing up a sample for this subgroup therefore became a very difficult task. As a result, entrepreneurs were visited in their respective business premises by the researcher to find out which businesses still existed. During these visits, the researcher identified 400 independent entrepreneurs. Only 200 (50%) of the total identified independent entrepreneurs were sampled by simple random sampling. Out of the 200 sampled entrepreneurs, only 110 returned completed questionnaires, constituting 25% of the total identified population and 55% of the total sample.

Description of the Survey Instrument

The design of the questionnaire was informed by several reviews of the entrepreneurship literature. For instance, works of Chrisman and McMullan (1990) on the evaluation of small business assistance programmes and those of McMullan, Chrisman and Vesper (2001), and Vesper, McMullan and Sullivan (1989) on evaluating entrepreneurial support programmes were sources of information for questions, which were concerned with the economic impact of the SIYB programme on entrepreneurs. Many of the questions were formulated based on the SIYB training materials as an evaluative measuring instrument must measure the behaviours that the programme was designed to change (Posavac, 1975). A Self Efficacy measure used was an adaptation from a published document by Jerusalem and Schwarzer (1992) that has a self-efficacy scale designed to measure self-confidence. The questionnaire consisted of six main sections. Section one dealt with Entrepreneurial Cognition. Section two dealt with issues of enabling business environment. Section three had questions on starting a business. Section four assessed the main topics covered in the Improve Your Business programme. According to Leedy (2001), rating scales are more useful when behaviour, attitude or other phenomena of interest are evaluated on a Likert type continuum of “strongly disagree” to “strongly agree” (Leedy, 2001). Most of the questions were closed and asked respondents to indicate their responses on a pre-determined scale. In particular, questions on sections one, two and four were closed and asked respondents to indicate their responses on a Likert Scale. The Likert-type response format was used as it is simple to construct and administer. Furthermore, with this type of rating, respondents can understand the purpose of the scales; hence it is highly suitable for self-completion surveys (Malhotra et al., 2002). The Likert-type scales used ranged from ‘strongly disagree’ (1) to ‘strongly agree’ (7).

Section three of the questionnaire consisted of closed questions that required “yes” or “no” answers. Section five included demographic information, while section six evaluated the economic results of SIYB entrepreneurship training interventions on its beneficiaries. Questions in section six were concerned with business success as indicated in changes in sales, cash flow, assets, employment and costs. Questions relating to financial matters of entrepreneurs were regarded as being sensitive; hence they were at the end of the questionnaire. Very few sections used nominal scales to generate categorical data. Respondents were also required to provide their profiles. Additional questions such as age and sex and those related to the background of their businesses were included.

Multivariate Analysis of Variance (MANOVA)

MANOVA is a commonly used multivariate technique. It assesses the relationship between two or more dependent variables and classificatory variables of factors (Cooper and Schindler, 2001).

To conduct the MANOVAs, respondents were divided into four groups. This is in line with the MANOVA assumption that the size of the compared groups should be equal and not lower than 20 (Pallant, 2005). The total number of respondents from the “no training group” was 63 while that of other groups ranged from 22 to 24. To meet the MANOVA assumption, the no training group was randomly selected to make the number roughly equal to the other groups’ numbers and 35 respondents were randomly chosen for the purpose of conducting MANOVAs. The results of the MANOVAs are as follows.

One-way between-groups multivariate analyses of variance (MANOVAs) were conducted to assess if there were differences between the four groups in the study. The groups were: (1) participants who did not take part in any training (2) participants who did other training (3) participants who did SIYB
and other training (4) participants who did both SYB and IYB but no other training. Four main dependent variables were used as follows: (1) psychographics – motivation and self-efficacy (2) enabling environment – support from government and banks, support from family and competition (3) SYB skills achievement – ability to reconcile family and business and ability to adapt to business needs and (4) IYB skills achievement – problem solving, opportunity seeking, innovation and negotiation skills. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices and multicollinearity. No serious violations were noted.

1. Psychographics – motivation and self-efficacy

Table 1 displays the means and standard deviations for the measures of motivation and self-efficacy for each training group.

<table>
<thead>
<tr>
<th>Measure</th>
<th>No training</th>
<th>Only others</th>
<th>SIYB and others</th>
<th>SIYB no others</th>
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<tbody>
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<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
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<td>Motivation</td>
<td>4.51</td>
<td>1.38</td>
<td>5.10</td>
<td>.92</td>
</tr>
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<td>.53</td>
<td>3.06</td>
<td>.59</td>
</tr>
</tbody>
</table>

A multivariate analysis of variance indicated there was no significant difference in motivation and self-efficacy for participants in different training groups (Wilk’s = .898, F(6,222) = 2.45, p = 6.06, η² = .05).

2. Enabling environment - support from government and banks, support from family and competition

Table 2 displays the means and standard deviations for the measures of support from government and banks, support from family and competition for each training group.

<table>
<thead>
<tr>
<th>Measure</th>
<th>No training</th>
<th>Only others</th>
<th>SIYB and others</th>
<th>SIYB no others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Family sup</td>
<td>3.93</td>
<td>1.49</td>
<td>3.88</td>
<td>1.43</td>
</tr>
<tr>
<td>Gov/Bank S</td>
<td>3.37</td>
<td>1.31</td>
<td>3.49</td>
<td>1.05</td>
</tr>
<tr>
<td>Competition</td>
<td>3.63</td>
<td>1.15</td>
<td>3.98</td>
<td>1.23</td>
</tr>
</tbody>
</table>

The results of three variables in the enabling environment (family support, support from government and banks and competition) indicate no statistical difference between all the groups of training (Wilks’ Lambda = .910 F(9,267.86) = 1.18, p = .31, η² = .03). These results suggest that people, who have training and those who have no training do not show any difference in support from family, support from government and banks and competition.
Table 3 displays the means and standard deviations for the measures of SYB skills achievement for each training group.

**Table 3: Means and Standard Deviation for SYB skills achievement measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>N35 No training</th>
<th>N24 Only others</th>
<th>N35 SIYB and others</th>
<th>N22 SIYB no others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Ability to adapt</td>
<td>3.19</td>
<td>1.18</td>
<td>2.85</td>
<td>1.64</td>
</tr>
<tr>
<td>Ability to recon</td>
<td>3.06</td>
<td>1.06</td>
<td>2.30</td>
<td>1.22</td>
</tr>
</tbody>
</table>

The results of two variables in the skills achievement measure (ability to adapt to business and ability to reconcile family and business) indicate no statistical difference between all the groups of training (Wilks’ Lambda = .917, F(6.222,) = 1.66, p = .14, \( \eta^2 = .04\)). These results suggest that people who have training and those who have no training show the same ability in the adaptation to business and in the level of reconciling family and business.

Table 4 displays the means and standard deviations for the measures of IYB skills achievement for each training group.

**Table 4: Means and Standard Deviation for IYB skills achievement measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>N35 No training</th>
<th>N24 Only others</th>
<th>N35 SIYB and others</th>
<th>N22 SIYB no others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Problem sol</td>
<td>3.99</td>
<td>1.28</td>
<td>3.80</td>
<td>1.16</td>
</tr>
<tr>
<td>Opportunity</td>
<td>3.74</td>
<td>1.44</td>
<td>4.26</td>
<td>1.26</td>
</tr>
<tr>
<td>Mnnt Inn</td>
<td>3.89</td>
<td>1.27</td>
<td>3.78</td>
<td>1.10</td>
</tr>
<tr>
<td>Inno.Pro</td>
<td>3.44</td>
<td>1.38</td>
<td>4.37</td>
<td>1.32</td>
</tr>
<tr>
<td>Neg Skills</td>
<td>3.70</td>
<td>1.38</td>
<td>4.35</td>
<td>1.37</td>
</tr>
</tbody>
</table>
A multivariate analysis of variance revealed a significant difference in IYB skills achievement measures (problem solving skills, opportunity seeking skills, management innovation skills and product innovation skills) for participants from different group of training (Wilk’s=.785, F(15,298.54) =1.83, p=.03, \(\eta^2 =.08\)). However, univariate tests showed a significant difference in the mean for problem solving skills \((F(3,112) = 3.74, p = .01, \eta^2 = .09)\) and in the mean level of opportunity seeking \((F(3,112) = 3.77, p = .01, \eta^2 = .09)\) for participants in different training groups.

As the results indicate that there is a statistical significant difference between the groups, a follow up test was conducted. This was done by the planned contrasts method of testing. The test was conducted to inspect the level of problem-solving skills and opportunity between those participants who did training (only other training, training in SIYB and others, training both SIYB but not others) and those who did not do any training at all. The results of planned contrasts revealed that, as expected participants who did not do training presented significantly lower level of opportunity than those who did training \((t(112) = 3.06, p = .003)\). These results indicate that people who have done training have exhibited more opportunity evaluating skills than those who did not do training.

However, contrary to expectation, participants who did some training did not significantly display higher score in problem solving skills than those who did not do training \((t(112) = 1.48, p = .14)\). These results suggest that people who did training did not have any more problem-solving skills than those who did not do training.

**IMPLICATIONS FOR RESEARCH**

The results of the analyses indicate that there is no evidence of program effects in a range of outcomes between the different groups. In particular, there were no significant differences on a composite measure of business performance. The results indicate only small differences between groups on many important measures. However, the group of those who participated in the SIYB program scored significantly higher than those who did not attend the course on the measure ‘ability to reconcile family and business’ and the measure of ‘ability to adapt to business needs’. Given that there were so few significant differences between the groups, it is very difficult to develop a structural model for predicting the relationship between entrepreneurship education and business performance but the results do raise many important questions about SIYB and all entrepreneurial education programs designed to operate in developing countries.

Key questions include: Can a training program designed in developed countries work in a developing country? Are Western measuring instruments appropriate tools for assessing a Botswana (or, more generally, a developing country) population? Other important questions abound. It is always possible to address the questions raised in this study by calling for more detailed research of the SIYB program. A more courageous interpretation of results would permit an ability to pronounce the existing SIYB program a failure both in respect of its own objectives and in respect of a theoretically posited ‘ideal developing country entrepreneurship curriculum’ framework derived from the entrepreneurship education and developing country literatures.

**CONCLUDING REMARKS**

The paper provided a detailed descriptive analysis of the Start and Improve Your Business (SIYB) entrepreneurial training program that has been evaluated in a PhD study. It also outlined the general background to Botswana, where data were collected. Reasons for choosing Botswana as a study area were provided. The paper has also provided the methodology and results of the study, as well as the implications of the results.
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