

# An evaluation of business skills and training needs within selected small manufacturing businesses in the Vanderbijlpark area of Gauteng Province, South Africa

**Dr. O. Okubena**

Vaal University of Technology, Gauteng, Republic of South Africa  
E-mail:olumuyiwa@vut.ac.za/aokubena7@gmail.com

## **Abstract**

Laxity in managerial competencies due to relevant and appropriate skills has often been linked to small business failure despite its vital contribution to the economic development in South Africa. Skills development is one of the major challenges faced by South Africans, with more than 60% of the labour force being unskilled. This affects large percentage of small businesses around the country with unskilled employees evidenced in the day to day operation of the business. The small Manufacturing Industry in the Vanderbijlpark area of the Gauteng Province is a prime example of businesses that are affected by the short supply of relevant skilled personnel in the labour market. Nevertheless, the primary objective of this study was to undertake an evaluation concerning the significance of business skills and training needs for business success. Secondary objectives were to determine whether training in business skills as well as technical skills for the employees, could add value to the business success.

Research methodology included a literature review and an empirical study, making use of the survey method through self-administered questionnaires. Using mixed research design methods, the study collected data on the knowledge, training needs and attitudes of the employees. The statistical analyses included descriptive statistics, frequencies, Chi-square tests, linear regression and ANOVA. Thence, the Cronbach's alpha was used to measure reliability of the research results. This however reduced the situation in which either test or scale is wrongly discarded or test criticized for not generating trustworthy result. Additionally, the associated concept of internal consistency, homogeneity and unidimensionality was employed to improve the use of alpha. The research findings established that training in business skills and related types of skills was essential for the success of a business. The findings further showed and confirmed that, effective training foster and enhanced sales results, annual turnover, product quality and employee skills and development.

**Keywords:** Small business, training, skills and development

## **Introduction**

Small firms are often the vehicle by which the lowest income earners in the South African society gain access to economic opportunities at a time when the distribution of income and wealth in South Africa is amongst the most unequal in the world. In South Africa, as in many developing and semi-industrialised countries, the main problem experienced by owners or operators of small firms, is the difficulty in accessing business finance. In the current South African socio-political context, the "access to finance" issue becomes even more topical and sensitive to unemployment, with the result that income and wealth inequality levels continue to increase

(Okubena 2007). Thus, it is imperative that significant investment is made in small firms in order to create both short term and long term capacity for labour absorption, as well as to improve income generation and redistribution.

South Africa is a country of growing business opportunity in which the spirit of free enterprise is evident. Modern businesses are often characterized as turbulent and dynamic. Individuals, who work in them, under these conditions, need to be entrepreneurial. However, instead of becoming adaptable, flexible, autonomous and entrepreneurial, many individuals in this rapidly changing, complex environment tend to react in the opposite way. Empowerment is the key to

developing the characteristics required for such a changing environment. To empower means to enable and to develop a sense of self-efficacy. Empowered individuals feel less constrained and more self efficacious, autonomous and creative and are more likely to be innovative and expect more success. The attainment of necessary skills, could not only promote business and manufacturing efficiency, but, could also benefit the country at large. Therefore, it is vitally important to assess and specify success factors that promote efficiency and survival of the small manufacturing business that could serve as benchmarks for emerging small firms. It is also important to assess whether training can play a role in the acquisition of these skills by entrepreneurs.

The focus of this study is pertinently centred on skills of technicians and artisans, as well as attainment of related skills of the large percentage of workers who have a minimum level of education (Van Zyl, Wetten, Bredell, Kiely, Laing, Botha & Hardy 2008). Nonetheless, a need for an industry to be competitive is imperative, because of the threats of products from China that flood the local markets as well as the need for quality and affordable products. Since the presence of vibrant manufacturing businesses is very crucial; this study however discusses the problem statement attributable to the study.

### **Statement of the problem**

Given that the growth and development of small firms is regarded as fundamental to providing economic growth, prosperity and employment choice, maximizing the development of competence through appropriate training, in order to optimize growth potentials is of paramount importance. For a firm to be prosperous it should be well-managed and the manager should acquire the necessary resources to drive the business. Studies on small firms such as Okubena (2007) reveals lack of attention to the issue of administrative, organizational training and managerial development over the past twenty-five years.

Thus, this study will identify training needs within selected small manufacturing businesses in Vanderbijlpark area of Gauteng.

### **Objectives of the study**

The following objectives are explored:

- To identify specific business skills and training needs that are essential for the success of small manufacturing business.
- To identify the necessary business skills for the small manufacturing firms.
- To find out whether training in small manufacturing firms related skills is linked to the success of the small manufacturing firms.
- To establish what type of training skills is necessary for the success of small manufacturing firms.
- To establish whether programmes exist to supply relevant training.  
To be able to recommend training programmes

### **Hypotheses of the research**

Based on the objectives established above, the following Primary hypotheses are formulated:

#### **Hypotheses**

- $H_0$  The success of small manufacturing firms is not dependent on business skills training needs.
- $H_1$  The success of small manufacturing firms business is dependent on business skills training needs.
- $H_{2:0}$  Business skills are not a determinant of success within small manufacturing firms.
- $H_{2:1}$  Business skills are a determinant of success within the small manufacturing firms

### **Overview of training and skill**

According to Shadare (2010), in any work organisation across the world, productivity, improved performance and competitive advantage have become issues of concern among the stakeholders. It has been argued invariable that workers' training tends to foster effective utilisation of organisational resources. Armstrong (2002) asserts that training is concerned with providing learning and development opportunities, implementing training intervention and planning as well as conducting and evaluating training programmes. The author discloses that the overall aim of manpower development programmes is to see that the organisation has the quality of workforce it needs to attain its goals for improved performance and growth.

According to Hackett (2004), training is basically a learning experience, which seeks a relatively permanent change in individual's skills, knowledge, attitudes or social behaviour. Hellriegel, Jackson, Slocum, Staude, Klopper, Louw and Oosthuizen (2001) refer to training as the improving of an employee's skills to the point where tasks are done effectively. Training interventions and methods are thus aimed at changing the current level of skills and knowledge regarding a job. Training enables participants to change behaviour and perceive activities in more positive way (Kessy and Temu 2010). According to Vemic (2007), training and development does not imply only obtaining new knowledge, abilities and skills, but also the possibility to promote entrepreneurship, introduce employees to changes, encourage the changes in attitude, introduce the employees to important business decisions and involve them actively in the process of decision-making.

Prior studies argued that training has become increasingly important to the survival of organisations as a result of changes both in the context of organisations, and within organisation (Gilley & Maycunich, 2000). The importance of training is primarily attributed to rapid and continuous change in the organisation's environment (Coetzer 2002). According to Gilley and Maycunich (2000), forces such as globalisation, technological innovation, changing consumer preferences and deregulation are thought to be responsible for change initiatives. It was argued that believe that organisation that learn faster will be able to adapt quicker and thus avoid the economic evolutionary weeding-out process (Burke & Hopkins 2000). Shadare (2010) submits that the objective of training in any work organisation is achieved by ensuring as far as possible, that everyone in the organisation has the knowledge and skills and reaches the level of competence required to carry out their required job skills and reaches the level of competence required to achieve required job effectively. Similarly, Armstrong (2002) contends that the performance of individual employees and teams in work organisation is subject to continuous improvement on their skills and employees should be developed in a way that maximizes their potentials.

Different theories have been used to explain performance and growth of enterprises. The human motivation view also explains the effects of a business owner's reaction to the

performance of business. According to Benzing and Chu (2009), subscribers of this theory assert that the social and psychological motive can significantly influence growth-seeking behaviour and therefore growth of the business. They further argue that personal needs of owner/managers motivate them to seek further growth and that these needs are socially generated, sustained and changed. These factors and human needs can be shaped through training. Singh and Belwal (2008), argue that other motivation for growth includes the completion of challenging tasks, having control over one's own job, upward movement of business activities, creating more opportunities for businesses, learning new skills by working in challenging environment and sometimes the poverty reduction motive. Bratton and Gold (2003) mention that some of these motivation characteristics can be acquired through training and learning from others.

### **Importance of training**

The importance of training as a tool for business growth has been recognised worldwide. Studies have revealed that training contributes significantly in business growth. Edgcom (2002) established that training has a significant impact on participant characteristics and participant outcomes. Training adds to the skills of the manager/owners, changes their behaviour on how they perceive and conduct business activities and in turn enhances their ability to perform better. With the right skills, the managers/owners can gain important advantages even under a competitive environment. Roomi, Harrison and Beaumont-Kerridge (2009) add that through training, the manager/owner can acquire networks, transfer technology, develop commercial entities and acquire new and better management techniques because training is mainly geared toward building entrepreneurial skills and traits of the recipients in order to better their business practices. Business skills are also deemed necessary in the transformation of the business hence the owner/managers should likewise undergo training (Kessy & Urio, 2006).

Furthermore a study by Kessy and Temu (2010) also showed that training is very important in the facilitation of business growth. It revealed that businesses owned by individuals who underwent business related training, demonstrated higher growth than those owned by individuals who have never had any kind of business training (Kessy & Temu, 2010). It was found that training helps

business owners/managers and potential entrepreneurs to meet challenges of today's business environment, manage the ever-changing world and plan for the future of their business. The study argue that this could be achieved, because, in order to effectively pursue growth strategies, the business manager requires business skills to improve business management and skills obtained in training which should become an asset that can help to overcome uncertainty in decision-making and also open avenues for opportunities. Guzik (2002) concludes that training and developing employees for optimum performance is crucial to organisational success, as it represents a planned effort by an organisation to facilitate employees' learning of job-related behaviours. There is however a need to distinguish between the closely linked concepts of training and education.

### **Training and education**

There is a close link between training and education with these concepts being usually used interchangeable. The key concept of these two terms is that both involve the transferring of knowledge, though this may involve making use of different methods, information and skills, involving different stages in the life of a person. Distinguishing between these concepts is of great importance, so that their meaning can be understood. It is also accepted that the ability of an individual to acquire knowledge, skills and attitudes in a training context, may depend directly or indirectly on the quality of previous educational experiences (Buckley & Caple 2004). On the other hand, education is influenced by the skills which an individual has acquired through training and involves exploiting of new learning situations. According to Branchard and Thacker (2007), training on the other hand, usually involves the acquisition of behaviours and facts that are more easily defined in a specific job context. Training is more job-oriented than person-oriented, education is more person-oriented and is a broader process of change. Its objectives are less amenable to precise definition.

Perceived from another angle, training can be seen as a more mechanistic process which revolves around uniform and predictable responses to standard guidance and instruction reinforced by practice and repetition. Education, on the other hand, is a more organic process bringing about less

predictable changes in the individual (Buckley & Caple 2006; Branchard & Thacker 2007). Training aims to provide knowledge and skills to initiate the attitudes which are needed to perform specific task. Education usually provides theoretical and conceptual frameworks designed to stimulate an individual's analytical and critical abilities (Hackett, 2004). Changes brought about by training are more immediately observable in the short term where as the outcomes of education and development are more long-term and possible observable in a more profound way.

### **Training cycle**

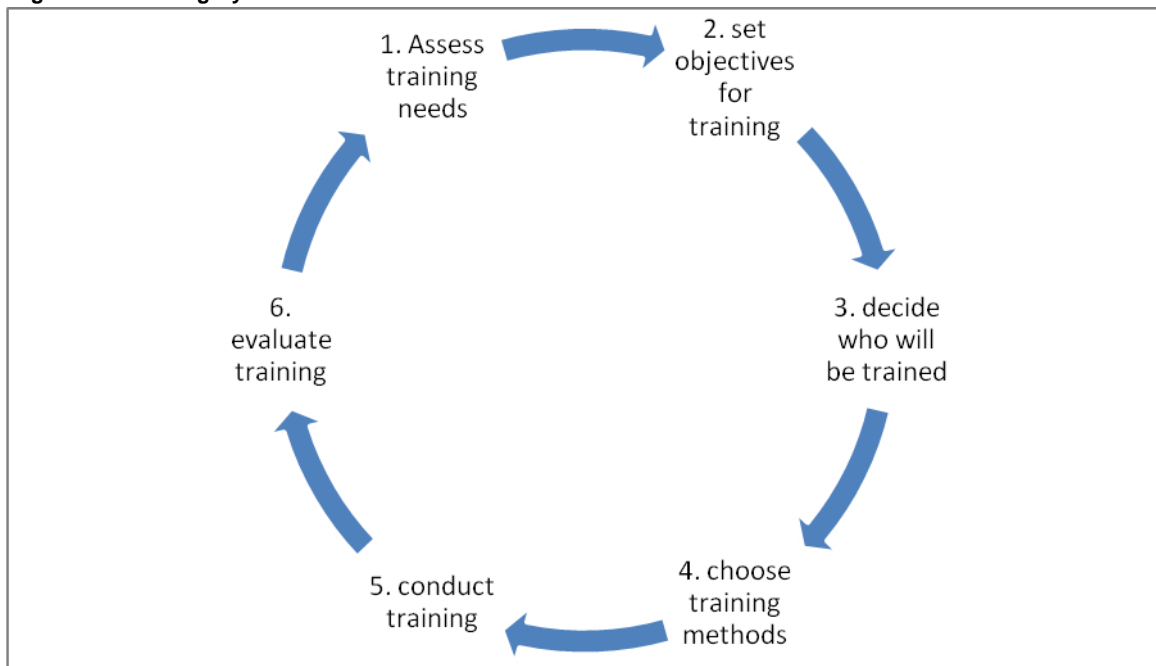
Training needs careful planning for it to be in proper order. The training cycle identified by Certo (2006), in figure 3.1 shows the steps that need to be followed in planned training in order to achieve a successful training session. As part of the cycle, the first step should be the assessing of needs for training. This involves the identification of the various needs for training in an organisation (Certo 2006). The second phase involves the planning stage which paves way for the setting of objectives. Objectives again, are based on a comparison of the current and desired level of performance as well as skills. It is imperative that the training objectives should meet the criteria for effective objectives which are written, clear, measurable, specific and challenging, but achievable (Certo 2006). Erasmus et al. (2005) adds that such training objectives should also support the organisation's goals.

Once the planning is done, the next step is an organisation to do an evaluation on who is supposed to undergo training and this depends on the training needs which are discussed in the next section. The next step involves the actual training commencing and the organisation having to decide whether to hire someone to do the training or whether it will be done by an experienced employee from within the organisation. The organisation's management now has to choose the methods of training to be used, preferable combining a variety of methods, because individuals have different learning styles, and they approach a subject and retain information in varying ways (Certo 2006). According to Hackett (2004), training methods should include visuals and audios as well s a chance to involve employees in trying out what they learn. The process of evaluation is the last step, which involves an assessment as to whether the employees learnt something and also to

identify needs for additional training. The training cycle appears in figure 1.1 can be seen as a process starting with the

assessment of training and ending with the evaluation of training.

Figure 1.1: Training Cycle



Source: Certo (2006)

### Employee training

According to Burke and Hopkins (2000), we have entered a knowledge-based era where the emphasis is increasingly on human capital, rather than financial and physical assets. Knowledge is regarded as a key asset of employees, and their ability to acquire and use it is considered a core competence (Coetzer, 2002). The organisational models of the present era make it virtually impossible for managers to operate according to the old hierarchical paradigms. Individuals at every level have to think for themselves, exercise initiative, innovate, and solve problems at the source as quickly as possible (Poell, Chivers, Van Der Krigt & Wildermeersch 2000). This knowledge can be passed on to the employees through training them in the necessary skills.

Understanding the phenomenon of employee training requires understanding of all the changes that take place as a result of learning. As the generator of new knowledge, employee training is placed within a broader strategic context of human resources management, that is, global organisational management, as a

planned staff education and development, both individual and group, with the goal to benefit both the organisation and employees (Vemic, 2007). To preserve its obtained positions and increase competitive advantage, the organisation needs to be able to create new employees, thus, continuous employee training and development has a significant role in the development of individual and organisational performance (Drucker 2001). The strategic procedure of employee training needs is to encourage creativity, ensure inventiveness and be able to shape the entire organisational knowledge that eventually provides the organisation with uniqueness and thus differentiates it from the others (Tisen Andriesen & Depre, 2006).

### Types of training

There are basically two types of training that business may embark on in a bid to equip their employees with the necessary skills to perform specific jobs, which can include on-the-job training and off-the-job training. The choice between on-the-job and off-the-job training depends on a

number of consideration such as the organisation's training policy, the precise needs to be met, the urgency of the needs, the resources available inside the organisation and their location, the resources available outside the organisation and finally the state of the training budget (Hackett, 2004). The two methods of training are discussed in the next section starting with on-the-job training.

### **On-the-job training**

On-the-job training is a planned, job-specific training conducted at the work site by a supervisor or an experienced fellow employee, using the actual equipment, tools and processes of a specific job (Steinbach 2005). With on-the-job training, employees receive training whilst at their workplace. Once an employee is hired, it is the organisation's responsibility to provide training in the specific skills necessary to do the job correctly. Providing good on-the-job skills training allows the manager to focus on finding people with right attitudes who can then be trained to do the job correctly (Mallet, Kowalski-Trakflor, Vaught, Wiehagen, Peters & Keating, 2005).

There are four main methods of on-the-job training, namely demonstration/instruction, coaching, job rotation and projects, which are discussed below, starting with demonstration/instruction (Mallet et al. 2005):

- Demonstration/instruction is about showing the trainee how to do the job. The instructor uses some equipment to demonstrate how the job is done, allowing the trainee to repeat the procedure in a hand-on practical session to reinforce the learning process. Guzik (2002) adds that the mistakes made by trainees are immediately corrected to reinforce the proper procedure. Direct demonstration is a very effective method of instruction, especially when trainees have the opportunity to repeat the procedures.
- Coaching is a more intensive method that involves a close working relationship between an experienced employee and the trainee. Trainees are assigned coaches or supervisors whose responsibility it is to develop a plan how to impart the knowledge and skills needed by

the trainee. Coaches also have to conduct an official evaluation to determine whether trainees have achieved an acceptable level of performance. One aspect of successful coaching is ensuring that the goals set by the individual are clear and realistic (Neenan & Dryden, 2001).

- Job rotation is when the trainee is given several jobs in order to gain experience of a wide range of activities. Job rotation is position-oriented, with management determining the need of the specific job (Edwards 2005). Holle (2005) adds that job rotation is an opportunity for the employee for learning new skills. He further goes on to say that it is a way of reducing employee boredom and it facilitates more understanding about the job and the organization. Eriksson and Ortega (2004) add that job rotation motivates employees who would otherwise become bored and tired always performing the same tasks. According to Rohr (2000), job rotation provides an organisational overview, encourages interdepartmental cooperation, brings fresh viewpoints to otherwise stagnant sections of the organisation, and thus promoting flexibility. Malinski (2002) sums it up by saying that it reduces work stress, absenteeism, and turnover and brings about an increase in innovation, production and loyalty.
- Projects – this is when employees join a project team which gives them exposure to other parts of the business and allow them to take part in new activities. This type of training reduces pressure on the trainees as they have to work within a team where they are given smaller tasks to perform. Due to close mentorship from other experienced colleagues, trainees are able to quickly adapt to the new job.

### **Off-the-job training**

This is when an employee is sent to another location outside the business to learn a skill or acquire important knowledge (Steinbach, 2005). According to Erasmus et al (2005), this is a way to acquire background knowledge needed for some jobs. Indeed, relevant off-the-job learning, in the form of academic study about vocational training, is likely to form part of the employee specification for recruitment. Off-the-job techniques include lectures, special study, films, television conferences or discussions, case studies, role playing,

simulation, programmed instruction and laboratory training (Roberts & Seldon, 2000). Off-the-job training can be done using six methods that are explained below, starting with day release (Steinbach, 2005):

- Day release is when employees take time off work to attend a college or training centre
- Distance learning/evening classes; is when employees have to go for training at some facility or attend evening training after work.
- Block release courses are taken when employees have to go for training that can take weeks to months at a college.
- Sandwich course; is where the employees spend a longer period of time at college before returning to work.
- Sponsor courser in higher education.
- Self-study, computer-based training.

Based on the overview of training espoused, it is important to discuss the benefits of training in this context

### **Benefits of training**

The benefits of training, according to Kunene (2008) appear thus:

- Training improves the probability of getting things right and could reduce failure rates.
- Training facilitates the implementation of an organisation's strategy by providing required skills to perform in the working situation and know-how of procedures and business processes that the business implements its strategy with fewer difficulties.
- Training improves skills that enhance business performance in terms of productivity, competitiveness and profitability, and brings about an increase in sales, assets and employees.
- Training and practice can enhance leadership and can boost the need for achievement, enhance self confidence and influence growth-related entrepreneurial and managerial attitudes and perceptions as well as to alleviate the fear of failure.
- Training can help identify growth patterns and successfully address key barriers to entrepreneurship.
- A first business attempt may fail, but a trained and educated entrepreneur will retain knowledge and abilities to try again.

- Training implies a short period of learning which leads to less costly training, a decrease in wastage, fewer accidents, less absenteeism, lower labour turnover and greater customer satisfaction.
- Training contributes towards the achievement of current organisational objectives. It can even play a direct role in the long-term strategy of an organisation through the nature of the actual training context. In this respect, training can move away from individual skills and can deal with leadership, groups and organisational issues.
- The training function can potentially impact in a positive and major way on the management of change. It helps manager to develop the capacity to deal successfully with change itself. Training and development programmes can be designed to ensure that the necessary abilities to handle the uncertainties associated which change are acquired.
- Training can affect the organisation's culture indirectly through the management of individual and group training. This involves training a group at one level in the organisation, then allowing them to pass on the content and attendance attitudes to others further down the chain.
- Through training programmes, an organisation can be exposed to evaluate the current performance and the operating environment. Trainers are often in a good position to diagnose the causes of poor performance and suggest what and how improvement can be made.
- A need for new knowledge, skills and attitudes within the organisation will make a contribution through identification of training needs and through implementation of relevant strategies to meet these needs.
- Through training, employees gain intrinsic job satisfaction. Intrinsic job satisfaction comes from performing the task well and being able to exercise a new repertoire of skills. Extrinsic job satisfaction may be derived from extra earning accrued through improved job performance and the enhancement of career and promotion prospects both within and outside the organisation.

Though training appears to be the best thing an organisation could do, there are also some challenges that are encountered when it comes to training in South Africa.

### **Challenges of training**

Though much can be said about training in South Africa, there is still a shortfall in skills training. Various role-players have put much effort in training but many people blame the education and training system in South Africa for the lack of business excellence in the country. Shortages of management skills raise questions about the availability and quality of training provided to businesses (Freeman 2000). There are barriers in the supply side and execution of training and skill development initiatives. It will work better for the development of the skills if these barriers can be identified. The barriers can be categorised into cultural, diagnostic, finance, service provider, appropriateness, as well as content and other relevant factors.

### **Culture**

Culture plays a major role in training strategy as it influences attitudes, understanding and behaviour of businesses in training activities which tend to influence quality and quantity of its provision (Mayrhofer & Hendriks, 2003). Culture prepares the mindset of the people to participate in a training programme and has an influence on their confidence, attitude and behaviour as well as their willingness to take risks (Pretorius et al., 2005b). It happens that the government might be offering specific training, but that the owner/managers themselves are not taking part in such training that could be essential for their businesses' performance. Unfortunately, owner/managers are hesitant to engage in learning or regular formal training and there seems to be a lack of interest from the workforce when training is offered, which caused the actual rate of usage of training opportunities and programmes to be very low (Matlay 1004 Strydom & Tustin 2003).

### **Research methodology**

#### **The study area**

The research was conducted in the Vanderbijlpark area of South Africa. Vanderbijlpark is home to Vanderbijlpark Steel (before part of ISCOR – Iron and Steel Corporation), and now part of the global company ArcelorMittal. Vanderbijlpark is a neighbouring towns to Vereeniging and Sasolburg, it forms the Vaal Triangle, a major industrial region of South Africa, in the district municipality of Sedibeng and the local municipality of Emfuleni. Additional, VECOR,

the largest comprehensive heavy engineering works in the Southern Hemisphere and Cape Gate (Pty) Ltd, a major market share holder in the wire industry are also in Vanderbijlpark.

### **The study unit**

This study focused on the small Manufacturing firms in the Vanderbijlpark area. The study covers all the diverse manufacturing firms, which include agriculture, electric, household and building manufacturers in the Vanderbijlpark area.

### **Study population**

The population of this study is restricted to the small manufacturing firms in Vanderbijlpark area of Gauteng, South Africa.

### **Sample size**

The Raosoft software (2011) sample size calculator was used to calculate the sample size. Raosoft sample size calculator is a statistical software package that enables researchers to determine the sample size.

### **Data collection methods**

The survey was done by visiting the selected businesses by means of walk-ins and explanations regarding the purpose of the study and request for participation so that a personal commitment could be established from the respondents. Questionnaires were handed out to the respondents for possible completion. The questionnaires were collected personally by the researcher to allow for evaluation of any problem that the researcher may experience. The purpose behind this approach was to have control over the quality of the responses as well as clarifying reason behind choices made. The collection time was two weeks, however response times varied and some respondents did not meet the two-week response deadline. Due to other commitments, phone call follow-ups were made regularly to find out how respondents were progressing or whether they needed assistance. The reason for personally visiting respondents as opposed to using a mailing system is to determine that the business in fact exists and also to ensure a better commitment to completing of the questionnaire through personal contact and assistance.



A personal introduction and motivation for the research helped to put people at ease and increase cooperation. A verbal overview of the topic of the survey as well as the purpose behind it was given to the respondents. The introduction removes the first perceived threat by some respondents receiving a postal questionnaire and making assumptions about it or deciding to ignore it. Some respondents assume the researcher is from South African Revenue Services (SARS) and need to be reassured that they are merely part of a research study for academic reasons. Personal collection of the questionnaires offered the opportunity for a brief check to ensure that the questions were understood and that every part of the questionnaire was completed.

### **Research design**

There are two main approaches to researching and obtaining data on the subject matter being analysed, which are the qualitative approach and the quantitative approach. A key distinction between the quantitative and qualitative approaches is that qualitative research tend to be associated with subject responses, narratives or observation data to identify themes, whereas quantitative analysis tend to be associated with numbers and variable (Kolb 2008). According to Rajaram (2008), research undertaken in the manufacturing industry is done based on the quantitative methodology approach; one of approach which this study then makes use of.

### **Quantitative approach**

Cooper and Schindler (2006) define quantitative research as a systematic collection of numerical information and analysis of that information using statistical procedures, meaning that the data are measured making use of numbers. The approach was used to answer questions about relationships among variable with the purpose of explaining, predicting and controlling phenomena. Descriptive statistics, such as the mean, mode, median and standard deviation are used to describe and summarise the data obtained from the respondents. Inferential statistics, such as the chi-square test, form part of quantitative research, as well as t-tests, and analysis of variance (ANOVA).

### **Questionnaire structure**

Questions that focus on business skills and how training can influence success of small

manufacturing businesses were asked. The questions were checked to confirm proper scope and coverage and the willingness of the respondents answering the question. They were also checked to ensure there were no double meaning, bias and that the respondent would not mistake the meaning of a question.

The instrument was structured in such a way that the first section (A) of the questionnaire asked question on the demographic background of owners/managers. The owners/managers factors considered include age; gender; levels of education and ethnic group. Section B is based on the general characteristics of the firm. The firm factors include product, turnover, number of employees, age of business, form of business and business location. The demographics section was important as statistical significance variance can be checked for all demographic variable that impact business performance.

The third section (C) of the questionnaire focused on the skills and the training thereof. It explored the skills acquired and how the training receives might have influenced successful firms. The first set of questions, in this section, centred on whether business skills are deemed vital for success and growth of the business. The second set asked about the importance of technical skills which employees are expected to possess. The questions were aimed at finding out the relationship between training in certain skills set and business success. The last section (D) is based on the outcomes of training. The main purpose is to find out whether there had been a positive change in the business due to the training received by the owners/managers or the employees.

### **Sampling errors**

Sampling errors arise from estimating a population characteristic by looking at only one portion of the population rather than the entire population (Cooper & Schindler, 2006). It refers to the difference between the estimate derived from a sample survey, and the true value that would result if the whole population was tested under the same conditions (Babbie, 2007). Sampling errors were minimized in the survey by using a large sample size of approximately ninety five percent (95%) of the population. A large sample size is more representative of the population.

### **Response error**

Response errors were minimized by carefully constructing and pre-testing the questionnaires. The use of self-administered questionnaires, also, assisted in reducing response errors, because unclear questions were clarified by the researcher to the respondents. However, data for the study at hand was only obtained from the respondents who were willing to complete the questionnaire. This might have created a bias relative to respondents who refused to participate in the survey.

### **Non-response error**

Babbie (2007) describes a non-response error as an error cause by failure to contact all members of a sample and/or the failure of some contacted members of the sample to respond to all or specific part of the questionnaire. The non-response error occurs because people who respond to the survey might not have characteristics similar to those who do not. Non-response errors are reduced to the absolute minimum in the research study by repeated telephone calls and visits to the respondents. The researcher reached out the respondents through telephone calls and visiting them to get the missing information. After the collection of data, data analysis follows and is discussed in the next section.

### **Data Analysis Procedure**

The collected data was analysed with the aid statistical Analysis System V8 which is used to provide descriptive analysis and Statistical interpretation for graphical analysis. The analytical methods used were descriptive analysis to count data while the correlation was used for testing associations of respondents. Correlation usually refers to the degree to which a linear predictive relationship exists between random variables, as measured by a correlation coefficient.

The researcher also made use of inferential statistical tests in the data analysis procedure. Inferential statistics is the method use to draw conclusions about the population itself. It allows the researcher to draw conclusions about the population on the basis of data obtained from samples. It involved the use of the chi-square test, the t-test and ANOVA. The chi-square test is a binominal test that is appropriate for situations in which a test for differences between samples is required especially where the population is viewed as only two cases, such as successful and less successful and all observations fall into one or

the other of these categories (Cooper & Schindler 2001). The t-test is used to test a proposition stating that the mean scores variable will be significantly different for two independent sample groups (Zikmund, 2003). It tests for difference of means, assuming that the two samples are drawn from normal distributions. Lastly One-way Analysis of Variance (ANOVA) was used and it tests the null proposition such that the means of several populations are equal. It was used to test the main and interaction effects of categorical variables on a continuous dependent variable, controlling for the effects of selected other continuous variables which co-vary with the dependent.

Additionally, the Cronbach's alpha was used to measure reliability of the research results. This however reduced the situation in which either test or scale is wrongly discarded or test criticized for not generating trustworthy result. Hence, the associated concept of internal consistency, homogeneity and unidimensionality was employed to improve the use of alpha.

### **Analysis of Variance (ANOVA)**

The statistical method of testing the null proposition such that the means of several populations are equal is called the analysis of variance (ANOVA) (Burns & Burns 2008). The testing of two independent variables calls for the introduction of ANOVA and is used to test the main and interaction effects of categorical variables on a continuous dependent variable, controlling for the effects of selected other continuous variables which co-vary with the dependent. ANOVA is a versatile statistics which tests for the significant differences between two or more groups of means and additionally breaks down the variability of a set of data into its component sources of variation. ANOVA is carried out in order to provide a more in-depth analysis of the data. As with correlations, some of the study's propositions are built on the significant differences between variables and factors. ANOVA is therefore used to prove or disprove the last three hypotheses of the study.

### **Hypotheses testing**

#### **Hypotheses 1**

H<sub>0</sub>: The success of small manufacturing firms is not dependent on business skills training needs.

H<sub>1</sub>: The success of small manufacturing firms is dependent on business skills training needs.

The information in table 5.7 below is used for the hypothesis testing of the above hypothesis, to find out if the success of small manufacturing firms is dependent on business skills and training needs. The chi-square was

used to find out whether a significant difference exists between the manager/owners on how they depend on business skills in the business. This measured how the female owners/managers determined the importance of the business skills as compared to the male owners/managers respondents.

**Table 1.1 Chi-square on importance of skills for the business**

Skills	P Value	DF	SIG (2-sided)
Business Systems	4.589 <sup>a</sup>	3	.003
Business Linkages	5.115 <sup>a</sup>	3	.004
Communication	2.541 <sup>a</sup>	3	.005
Computer Literacy	5.346 <sup>a</sup>	3	.003
Financial Management	2.043 <sup>a</sup>	3	.003
HRM	15.609 <sup>a</sup>	3	.001
Legal	23.384 <sup>a</sup>	3	.008
Marketing	21.856 <sup>a</sup>	3	.000
Operations	22.677 <sup>a</sup>	3	.000
Research & Development	26.642 <sup>a</sup>	3	.000
Strategy	34.223 <sup>a</sup>	3	.000
Supplier	12.781 <sup>a</sup>	3	.005
Resources	12.336 <sup>a</sup>	3	.005
Technical	13.054 <sup>a</sup>	3	.000

a=0.05, Confidence Interval=95

It became evident that there were significant differences between the male owners/managers and female owners/managers in terms of how they depend on training of the business skills for their

success with a p-value of 0.003. **The hypothesis: SMEs' success is not dependent on business skills and skills training needs; is thereby rejected.**

### Dependence on business skills

**Table 1.2 ANOVA<sup>b</sup> 1**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	16.224	13	1.248	.760	.004 <sup>a</sup>
Residual	78.825	48	1.642		
Total	95.048	61			

- a. Predictors: (Constant), technical & vocational skills, legal, supplier, communication, marketing, HRM, ICT, strategy development, operations, business linkages, business skills, research & amp; d, financial management
- b. Dependent Variable: turnover

applied. The p value is 0.004 which is less than 0.05 and indicates that, overall, the model applied is significantly good enough in predicting the outcome variable.

The statistical programmes ANOVA (Analysis of variance) was employed to statistically test the significance of this assertion on table 1.3.

Table 1.2 above indicates the statistical significance of the regression model that was

**Table 1.3 Coefficients<sup>a</sup> 1**

Model	Unstandardised Coefficients	Standardised Coefficients			95.0% Confidence Interval B
-------	-----------------------------	---------------------------	--	--	-----------------------------

	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	2.628	2.199		1.195	.038	-1.794	7.049
Business skills	.098	.204	.071	.480	.033	-.312	.508
Business linkages	-.125	.189	-.096	-.660	.012	-.506	.256
Communication	.187	.184	.146	1.019	.013	-.182	.556
ICT	.095	.190	.070	.499	.020	-.288	.477
Financial Management	.102	.218	.072	.467	.043	-.336	.539
HRM	-.110	.173	-.088	-.633	.030	-.458	.239
Legal	-.039	.173	-.033	-.228	.021	-.387	.308
Marketing	.014	.205	.010	.071	.044	-.398	.427
Operations	-.319	.195	-.232	-	.018	-.711	.072
Research & Development	.200	.170	.174	1.639	.044	-.141	.541
Strategy development	.271	.184	.213	1.471	.048	-.099	.641
Supplier	-.056	.208	-.039	-.268	.040	-.474	.363
Technical & Vocational skills	.071	.194	.055	.364	.017	-.320	.462

a. Dependent Variable: turnover

The details in table 1.3 in which the ANOVA and regression analysis determined whether business skills which include Business systems, procedures, processes and records; Business linkages, industry clusters and networking; Communication and access to relevant information; Computer literacy and information technology (ICT applications); Financial Management including cash flow, forecasting, pricing and costing; Human Resources Management and organizational planning; Legal (Business registration, government requirements, regulations and incentives); Marketing, promotions, customer relations and competitor analysis; Technical and vocational skills; Research & development including technical, market and product development; Strategy development, business planning, contingency plans and organizational control; Supplier, purchasing and inventory management and operations, including quality control and production planning, are all vital in the success of small manufacturing firms. Using a 5% significance level, the test results shows that the above mentioned business skills play a significant role in the success of the small manufacturing firms, with  $p < 0.05$ . Therefore the hypotheses: **Business skills are not a determinant of success in the small manufacturing firms is rejected.**

**Discussion of results**

**Dependence on business skills**

**H<sub>0</sub>** The success of small manufacturing firms is not dependent on business skills training needs.

**H<sub>1</sub>** The success of small manufacturing firms is dependent on business skills training needs.

The first hypothesis was on the dependence on business skills: the above hypothesis was rejected and the alternative accepted. This was measured using the chi-square and the  $p = 0.003$  was less than 0.05. This means that the small manufacturing firms dependent on the business skills for its success. It was evidenced that business skills are very important for the success of the small manufacturing firms and it is of great importance to implement and apply the skills to benefit the sector. This also encourages owner/managers to make a huge effort to get equipped with the skills they lack. Of the 13 business skills listed, majority of the respondents acknowledged that they had not been trained in at least five of the skills. These call for the owner/managers to implement effective training skills that will increase overall performance.

**Business skills and Success**

- **H<sub>2.0</sub>** Business skills are not a determinant of success in the small manufacturing firms.
- **H<sub>2.1</sub>** Business skills are a determinant of success in the small manufacturing firms.

The second hypotheses investigated the link between the business skills and success.

Using ANOVA the above hypotheses was rejected and the alternative was accepted with a  $p > 0.004$ . The results show that there is a strong link between business skills and success, meaning, training in business skills

by the owners/managers is likely to enhance the success opportunities of the business. This result however is consistency with Van Zyl, et al. (2008).

**Table 1.4 Summary of hypotheses testing**

	HYPOTHESES	OUTCOME
H <sub>1</sub>	The success of small manufacturing firms is not dependent on business skills training needs	Rejected
H <sub>2</sub>	Business skills are not a determinant of success in the small manufacturing firms.	Rejected

### Limitations of the study

It must be noted that skills development is only a part of the complex set of variable needed for business success. This study only focused on investigation of one variable (skills training) as contributing to business success. Hence, in reality it is not possible to separate factors that influence business success. The unwillingness of the owner/manager's of businesses to supply researchers with information needed for objective measures because of their suspicion of academic research and its motives was another limitation encountered in this study. Furthermore, the study's research design relies on the perspective of the individuals who are respondents. There are potential validity problems with a perceptual measure of competence as the self-evaluation is regarded as inherently biased.

### Theoretical implications

- The study revealed that skills are very important and essential in the success of small manufacturing firms. These skills have to be trained to the owner/manager so that they can use them for the success of the business. Some also need to be transferred directly to the workers so that they may use them, like the technical skills. Training should be demand based and not supply based so as to suite the required need especially on these most important skills;
- The second contribution of this study is all the skills that have been laid down to help the small manufacturing firms grow or maintain growth. With all these skills that have been mentioned being rightly trained to the right people, the small manufacturing firms will endure a great success in the province. Right channels of training also need to be followed; including on-the-job training to avoid lose of time in attending training in other places.
- The study has also come up with a strong need for training. This has proved to be a major problem facing businesses in every industry, lack of skills. Training is the only way the unlearned can learn. Skills development training workshops should be done in accordance to the industry so that the training is not generalised but it covers specific solution to a specific industry;
- This study could be usefully in the construction of a relevant skills development plan for the small manufacturing firms and the provision of more appropriate training programmes. This is because it have got all the information that small manufacturing firms view as essential when it comes to training and the desired skills as well. It also has got the insights on how they want the training to be conducted;
- The study also found out that training programmes are vital and need to offer accurate information about the training to be offered. This also follows that the information given on the programmes should be followed so that the participants get what they expected from the training;
- This study contributes to the body of knowledge in the field and adds to the massive and ongoing research gathering of reliable and accurate information about small manufacturing firms in the Vanderbijlpark area as well as South Africa as a whole and;
- To the international community, the results of this research can be used as a case study upon which various measures could be taken. The results serve as a lesson for the other countries embarking on skills development.

### Areas for further research

It is hoped that the finding of this study will spur further research in these areas:

- Studies can investigate the competence of the owners/managers in the skills that they have been trained- in so as to give an evaluation on success of the training programmes;
- Studies can be carried out on a national level rather than the provincial level and can also be inter-industry to ascertain consistency of the results which can be validated on national level.
- Longitudinal studies which will indicate changes in skill acquisition process over designated periods to verify the findings and recommendations of this study.

### Recommendations and conclusion

Taking an holistic approach is fundamentally important in any attempt to improve job competencies, hence, the following recommendations have been evidenced from the results analysed in this research study:

- Relevant business skills like business linkages and networking, entrepreneurship, communication, computer literacy and financial management should be integrated into all training programmes in all the stages of the business cycle.
- New managers/owners should conduct need analysis of relevant skills pertinent for business success. Efforts should be placed by the managers to ascertain level of ability in all the identified skill areas and then seek assistance to formulate skill development plans that will ensure and enhance business success.
- Organisations should continually assess employees required skills. Personal enrolment in outcome based skills development programmes should be instituted and ascertained ;
- Private training consultancies, mentors, tertiary institutions; NGOs, community based organisations and industry training organisations who focus on skills development should incorporate competency areas in all levels for each trainee and;

- Ensuring that any formal or informal attempts to improve employee capabilities are not disruptive.

### REFERENCES

ARMSTRONG M. of *A handbook human resource management practice*. 7<sup>th</sup> Edition, London: Kogan Page Limited.

BABBIE E 2007. *The practice of social research*. Belmont, CA: Thomson Wadsworth.

BENZING C, CHU HM 2009. A comparison of the motivations of small business owners in Africa. *Journal of Small Business Enterprise development*, Vol 16; 60-77.

BLANCHARD NP, THACKER JW 2007. *Effective training systems, strategies and practices*. 3<sup>rd</sup> Edition. New Jersey: Pearson Education.

BUCKLEY R, CAPLE S 2004. *The theory and practice of training*. 5<sup>th</sup> Ed. London: Logan Page Ltd.

BURKE G, HOPKINS S 2000. *Investment in the education and training of adults*. Future Australia, Business/Higher Education Round Table, Issue 1, May, pp. 111-114.

BURNS RB, BURNS RA 2008. *Business Research Methods and Statistics using SPSS*. New Delhi: SAGE Publication Ltd.

CETRO SC 2006. *Modern Management*. 10<sup>th</sup> Edition. Upper Saddle River, New Jersey: Pearson/Prentice Hall.

CETRO SC 2006. *Modern Management*. 10<sup>th</sup> Edition. Upper Saddle River, New Jersey: Pearson/Prentice Hall.

COETZER A 2002. Employee learning and development in the Small Business: Research opportunities and challenges. *New Zealand Journal of Applied Business Research*, Vol 1, November.

DRUCKER P 2001. *My view of management*. Adizes: Novi Sad.

EDGCOMB EL 2002. What makes for effective microenterprise training? *Journal of Microfinance*, 4;99-114.

EDWARDS ST 2005. *Fire Service Personnel Management*. 2<sup>nd</sup> Edition. Upper Saddle River, New Jersey: Pearson Prentice Hall.

ERASMUS BJ, LOEDOLFF PVZ, MDA T, NEL PS 2005. *Managing Training and Development in South Africa*. Cape Town: Oxford University Press.

ERIKSSON T, ORTEGA J 2004. *The Adoption of job rotation: Testing the Theories*. Aarhus, Denmark: Department of Economics, Aarhus School of Business.

FREEMAN S 2000. Partnerships between small and medium enterprises and universities that add value. *Education and Training*, 42(6):372.

GILLEY JW, MAYCUNICH A 2000. *Beyond the learning organization*. Cambridge, MA: Perseus Books.

GUZIK R 2002. On-the-job training. *Operation Management Journal*. Vol 345.

HACKETT P 2004. *Training Practice*. London: Chartered Institute of Personnel and Development.

HELLRIEGEL D, JACKSON SE, SLOCUM J, STAUDE G, KLOPPER HB, LOUW L, OOSTHUIZEN T 2001. *Management: South African edition*. Cape Town: Oxford University Press.

KESSY S, TEMU SS 2010. The Impact of Training on Performance of Micro and Small Enterprises Served by Microfinance Institutions in Tanzania. *Research Journal of Business Management* 4(2): 103-111.

KESSY SA, URIO F 2006. *The Contribution of Microfinance Institutions to Poverty reduction in Tanzania*. Dar es Salaam: Mkuki na Nyota Publishers.

KOLB B 2008. *Marketing Research: A practical Approach*. London: SAGE Publications Ltd.

MALINSKI RM 2002. Job rotation in Academic Library: Damned if you do and Damned if don't! *Library Trends*. On line [www.findarticles.com/p/articles/mi1387/is](http://www.findarticles.com/p/articles/mi1387/is). (Retrieved on 01 September 2011).

MALLETT LG, KOWALSKI-TRAKKOKFLER K, VAUGHT C, WILLIAM J, WIEHAGEN WJ, PETERS RH, KEATING P 2005. *Coaching skills for On-the-job trainers*. IC 9479.

MATLAY H 2001. *Entrepreneurial and vocational education and training in central and eastern Europe*. *Education and training*, 43(8/9):395-404.

MAYRHOLER AM, HENDRIKS SL 2003. *Service provision for street based traders in Pietermaritzburg, KwaZulu-Natal: comparison local findings to lessons drawn from Africa and Asia*. *Development Southern Africa*, 20(5):595-604.

NEENAN M, DRYDEN W 2001. *Life Coaching – The Cognitive-Behavioural Way*. London, UK: Brunner Routledge.

OKUBENA O 2007, An evaluation of investment appraisal techniques on the profitability of small manufacturing firms in the Nelson Mandela Bay Area, Eastern Cape Province South-Africa: M.Com Thesis, unpublished. South Africa. University of Fort-Hare.

POELL R, CHIVERS E, VAN DER KRIGT D, WILDEMEERSCH D 2000. Learning-network theory. *Management Learning*, 31(1): 1-18.

PRETORIUS M, VAN VUUREN JJ, NIEMAN GH 2005b. Critical evaluation of two models for entrepreneurial education: An improved model through integration. *The International Journal of Education Management*, 9(5):413-427 (Pretorius et al, 2005b).

RAJARAM R 2008. A needs analysis of financial management and accounting skills in the SME sector in KwaZulu-Natal. Unpublished M.Com Thesis: University of KwaZulu-Natal.

RAOSOFT 2011. Sample size calculator. [On-line]. Available: [www.raosoft.com](http://www.raosoft.com) [Retrieved: 14 June 2011].

ROBERTS G, SELDON G 2000. *Human resources management. Small Business Administration*. Georgia: University of Georgia.

ROHR DL 2000. Succession Planning for Senior Staff Positions. Executive Fire

Officer Research Paper. [On-line].  
Available: [www.usfa.fema.gov/pdf/efop/efo25657.pdf](http://www.usfa.fema.gov/pdf/efop/efo25657.pdf). [Retrieved: 23 August 2011].

ROOMI MA., HARRISON P, BEAUMONT-KERRIDGE J 2009. Women-owned small and medium enterprises in England: analysis of factors influencing the growth process. *Journal of Small Business and Enterprise Development*, 16:270-288.

SHADARE OA 2010. Influence of workers' training programmes on conflict reduction in industrial organisations in Nigeria. *African Journal of Business Management* Vol. 4(7): 1240-1246.

SINGH G, BELWAL R 2008. Entrepreneurship and SMEs in Ethiopia: Evaluating the role, prospects and problems faced by women in this emergent sector. *Gender Management International Journal*. 23: 120-136.

STEINBACH R 2005. *On –the-job training: preparing employees for success*. Ohio: Axzo Press.

TISEN R, ANDRIESEN D, DEPRE FL 2006. *Dividend knowledge*. Adizes: Novi Sad.

Report on South-African chemical sector on skills development and the Government economic policy priorities. *Report series No.10, 2008, Pretoria: South Africa*.

VEMIC J 2007. Employee training and development and the learning organisation. *Economics and Organisation*, Vol. 4 pp.209-216.

ZIKMUND WG 2003. *Business research methods*. South-Western Ohio: Thomson Learning.