IMPLEMENTATION OF THE SOUTH AFRICAN EXCELLENCE MODEL (ENTRY LEVEL) TO MEASURE AND IMPROVE MANAGEMENT PERFORMANCE OF SMME's IN AGRICULTURE AND RELATED BUSINESSES

by

MOWELASE ABRAM SHIYA

Dissertation submitted in fulfilment of the requirements for the Degree

MAGISTER TECHNOLOGIAE: AGRICULTURE

at the

School of Agriculture and Environmental Sciences
Faculty of Health and Environmental Sciences

CENTRAL UNIVERSITY OF TECHNOLOGY,
FREE STATE

Supervisor:
Prof. C. van der Westhuizen (Ph.D.)

Co-Supervisor
Prof P.J. Fourie (D.Tech.)

May 2011

DECLARATION OF INDEPENDENT WORK

I, Mowelase Abram Shiya, hereby declare that this research project submitted to the Central University of Technology for the awarding of the Degree MAGISTER TECHNOLOGIAE: AGRICULTURE is my own work that has not previously been submitted to any institution, by me or any other person, for the awarding of a qualification.

ABRAM MOWELASE SHIYA

May 2011

ACKNOWLEDGEMENTS

Through God all things are possible. To God Almighty be all glory and honor.

Among the many people who contributed to the successful completion of this study I would like to thank:

- My supervisors, Prof. C. van der Westhuizen and Prof. P.J. Fourie, for their tireless support, understanding and guidance throughout the study. Thank you for your consistent and selfless assistance through email, telephone and personal contact. Now I understand why we had to differ and agree at times. You inspired me to be successful to be novice qualitative researcher in a manner that went way beyond my expectations.
- The four banks for making time available for participating in the study and for their valuable information.
- Smallholder farmers in the Free State who agreed to partake in this research study, I thank you.
- My family and friends thank you very much for understanding and your support.

LIST OF TABLES

GLOSSARY OF TERMS

ABEF	Australian Business Excellence Framework
AoA	Articles of Association
AQA	Australian Quality Awards
BARS	Behaviourally Anchored Ratings Scale
BBBEE	Broad-Based Black Economic Empowerment
BE	Business Excellence
BEF	Bonneville Environmental Foundation
BEM	Business Excellence Model
BSC	Balance Scorecard
CSF	Critical Success Factors
CWQC	Company-Wide Quality Control
DAFF	Department of Agriculture, Forestry and Fisheries
DOA	Department of Agriculture
DTI	Department of Trade and Industry
EFQM	European Foundation for Quality Management
EQA	European Quality Award
JIT	Just In Time
JUSE	Japanese Scientists and Engineers
KPI	Key Performance Indicators
LSU	Large Stock Unit
MBNQA	Malcom Baldrige National Quality Award
NDA	National Department of Agriculture
NIST	National Institute of Standards and Technology
PBC	Performance Based Costing
PBB	Performance Based Budgeting
PI	Performance Index
PMM	Performance Measurement Model
SABS	South Africa Bureau Standard
SAEA	South African Excellence Award
SAEF	South African Excellence Foundation
SAEM	South Excellence Model
SAQI	South African Quality Institute
SASQ	South African Society for Quality
SCE	Supply Chain Efficiency
SEDA	Small Enterprise Development Agency
SMME	Small, Medium and Micro Enterprises
SQA	Singapore Quality Award
SQAM	South African Standard, Quality, Accreditation and Metrology
SSU	Small Stock Unit
TQ	Total Quality
TQM	Total Quality Management
UFS	University of the Free State
VCA	Value Creation Area

PREAMBLE

This study comprises five chapters. The first chapter is a general introduction that gives the background to the study and details the importance of the study. Chapter two encompasses the materials and methods used in this research study. It discusses study methods, site and discusses methods used for data collection and analysis. Chapter three is literature study, which gives the background to what the literature says regarding management practices, constraints and attitudes of farmers and also presents the available models to measure management performance in other organizations and in agriculture around the world.

Chapter four discusses the results and discussions, while chapter five, which is the final chapter, provides the conclusion and recommendations.

x

CHAPTER 1

GENERAL INTRODUCTION

1.1 MANAGEMENT PERFORMANCE MEASUREMENT

The measurement of inefficiency in the agricultural sector of developing and developed countries has received renewed attention since the late eighties from an increasing number of researchers, as frontier approaches to efficiency measurement have become more popular. There have been a vast number of applications of frontier methodologies to empirical studies with farm-level data in a large number of countries (Thiam, Bravo-Ureta & Rivas, 2001).

Performance measurement is currently the subject of debate in the business community and the academic world. However, in the agricultural industry it has found limited application as a tool for improvement. Large organizations are implementing performance management models to improve business processes, products and management of people to facilitate continuous improvement. There is a dire need for performance measurement systems in agriculture, which will not only adjudicate but will continuously improve the efficiency and quality of the business process, and identify opportunities for progressive improvement in process performance. That is the reason why a framework for performance measurement in agricultural industry is introduced in this research. The general objective of this study is to find new solutions to improve quality in production in the agricultural industry more particularly amongst the smallholder farmers. Smallholder farmer within the context of this research refers to any South African citizen falling under the definition of the historically disadvantaged individuals as cited within the constitution of the country and is currently involved in business across the whole agricultural value chain.

This study investigates the implementation of performance management models in other sector organizations and in agriculture. Arm the people with the right information, so they are able to make better judgements, smarter decisions and create environments in which to encourage innovation, in order to be able to provide a high quality service to their customers, that is the theme behind the introduction of a research study to evaluate the results obtained through the implementation of the excellence model to measure and improve the management performance of smallholder farmers.

1.2 PROBLEM STATEMENT

Global competitiveness is becoming stronger as more countries are embracing the free market model and opening up their borders for investments and trading. For a country to attract foreign investment and to increase its exports, the challenge is to produce and provide higher quality goods and services. The concept of quality encompasses all the ways in which an organization meets the needs of its financial stakeholders, its customers, and the community in which it operates, which indicates that quality is a broad and pervasive theme in all aspects of industry and society. Quality is crucial for gaining a competitive advantage internationally (Tan, 2002).

Over the past 15 years the pursuit of corporate excellence as a way of managing businesses for competitive advantage has been increasingly recognised and this has given rise to several Quality Management foundations. The establishment and maintenance of National Quality Award programmes requires continual improvement and refinement as award criteria and emphasis change with the economic, social and political climate of a country (Chuan & Soon, 2000). Many countries have established national quality awards or business excellence awards as recognition for deserving companies. Governments also are increasingly playing a more active role in promoting and encouraging organisations to embrace Total Quality Management practices (TQM) (Lee, 2002).

Business Excellence Models are based on the premises that customer satisfaction, people (employee) satisfaction and impact on society are achieved through leadership driving policy and strategy, people management, resources and processes, leading ultimately to excellence in business results (Shergold and Reed, 2006). According to these authors, Business Excellence Models and self-assessment provide:

- A structured approach to organisational improvement,
- An assessment that is based on facts and not perceptions,
- A means to achieve consistency and consensus on the way forward, and
- Ways to integrate various quality initiatives into normal business operations.

Since supply exceeded demand in the industrialized economies, subjective, qualitative factors, the intangibles, become at least as critical as the quantitative, objective (financial) factors in managerial decision making, because in a supply rich economy customers and other stakeholders have a choice: they can choose between various offers, and that means they are able to invest in a company or buy something that is more in line with their personal, subjective qualitative value scale than other offerings (Daum, 2004).

This doesn't mean that the quantitative, objective measurement that the financials provide (e.g. costs, price – all measured in monetary units that allow objective comparison independent from context and subjective interpretation) become irrelevant. It is still an important measurement of performance. But it covers only one dimension: the dimension of economic/financial efficiency. Missing is the dimension of external non-financial effectiveness from a subjective stakeholder perspective (Daum, 2004).

Only if we take both dimensions into consideration are we able to assess the true performance of a company, a business unit, a product line, or even of a

public service organization. We consider the vector-based approach to performance measurement and visualization as a good method to do that in a systematic way and allow aggregations and de-aggregations (mathematical operations) on the compound result, which we define as the total or compound performance (Daum, 2004).

Efficiency is still important today, but it no longer creates competitive advantage. The main driver for competitive advantage today is what we call external effectiveness, which is effectiveness from a subjective stakeholder perspective. This becomes obvious especially in the service sector, particularly in public services, where for centuries organizations have been managed only on the basis of budgets and funds. But today, when citizens are expecting more value for the taxes they pay, these organizations need something more than just the budget to optimize their operations and create value for their “customers” (Ellis, 1999).

Performance of an organization can no longer be defined and expressed just in financial terms (profit / return on investment for commercial organizations or meeting the budget for a public service organization). As long as performance measurement systems are still based mainly on financial information, they are too exclusively focused on financial efficiency and ignore the external effectiveness of an organization (Ellis, 1999).

Instead, we need performance measurement systems that are able to express subjective valuations, experiences, and ratings in a way that an organization is able to combine with quantitative financial information. In addition, the result has to be easy to understand and “manageable” from a managerial perspective, meaning that measurement is scalable (independent of time and location) and that it can be aggregated and de-aggregated so that it can be used across the entire organization, linking different areas of measurement into one system of performance measurement (Daum, 2004).

Tomkins (2001) examines fundamental concepts that relate to the need for information, including accounting information, in these interactive structures.

He initially considers some of the consequences for accounting when planning and control are exercised across organisational boundaries, but the main thrust of the research is to focus on the fact that all relationships depend on trust to some extent. Likewise, planning and control depend on accurate, timely, useful information. Activities that create, disseminate and apply information add value. All such activities could be coasted with a PBC system (Tomkins, 2001).

The above discussions emphasises a need for a new integrated model to measure and improve the management performance of smallholder farmers.

1.3 RATIONALE AND MOTIVATION

Changes in the environment should have an impact on the management practices of farmers. If the factors that influence farmers most can be identified and appropriate practices identified/developed, sustainable production could become a reality. Since the advent of the democratic dispensation in 1994, drastic changes have taken place in the country as a whole (SA), and the agricultural industry has not been immune to them. Some of these changes have impacted enormously on the environment in which farming is practiced. These changes have necessitated adjustments to farming practices and strategies.

A large number of changes occurred in the farming environment since 1994. The following are some examples:

- The new political system that came into effect;
- The financial uncertainty in world markets has a direct impact on South African farmers, as well as the viability of farming activities;
- Various other external factors like interest rates and the exchange rate also varied a great deal;
- The establishment of the current Marketing Act No. 47 of 1996 has led to some drastic changes in the farming environment. Now, with an open

marketing system and increased volatility in the commodity markets, producers have the right to determine their own financial security;

- New financing initiatives have been developed and the Land Bank's new mandate is to pay special attention to the needs of emerging black farmers, of people receiving land under the Land Reform programme and of agri-business;
- The Land Reform programme is one of the important tools used in South Africa since the advent of democracy in 1994 to redistribute 30% of agricultural land to the previously disadvantaged South African citizens in order to enable them to improve their income and also to develop rural areas. This has resulted into a growing number of black smallholder farmers being introduced to the agricultural fraternity with no or little knowledge and experience about farm management and control;
- Regarding the international trade environment, farming all over the world is undergoing profound changes (Van der Westhuizen, & Viljoen, 1999).

Due to the different levels of knowledge, experience and capacity, it is expected that smallholder farmers and commercial farmers will differ in their responsiveness to the environmental changes and therefore, the measurement of their management performance should also be done in a different and coherent way that will ultimately assist to identify their deficiencies and develop action plans to address these shortcomings. Given the above background, it is apparent that there are differences in the environment that smallholder and commercial farmers operate in. The way in which these farmers experience the impact of environmental factors as well as their adaptation of management practices will eventually influence their performance.

Therefore, the main research question is how the performance of farmers experiencing different environmental, political, economic, technological and social influences on farms of different stages of growth or advancement can be measured for continuous improvement and support? Given the above, the most intriguing question is the following: What management strategies must a

smallholder farmer employ to ensure sustained growth and the exploitation of the opportunities presented by these scenarios? Again, these scenarios necessitate a study of the management environment of farmers (Van der Westhuizen & Viljoen, 1999).

1.4 RESEARCH OBJECTIVES AND GOALS

The holistic nature of excellence models encourages organizations to link all their initiatives together instead of managing them as separate entities. It also provides a focus for improvement initiatives and a gauge to measure progress. The main aim of this study will be to analyze the adapted South African Business Excellence Model (Entry Level), its strengths and shortcomings for measuring and improving management performance.

This overall objective is divided into four (4) specific objectives, each with various goals:

Objective 1:

- To determine the practices, constraints and attitudes of farmers with different backgrounds, farming types and philosophical viewpoints.

Goal:

- To dissect studies of the farming practices of both smallholder and large commercial farmers and determine the indigenous management techniques used by smallholder and large commercial farmers.

Objective 2:

- To study the previous models developed and implemented to measure management performance in different organisations.

Goals:

- To identify models that are developed and used to measure management performance in various organisations around the world.
- To determine the nature of the information that is used to develop the models as well as the extent to which this information is used for the development of these models.

Objective 3:

- To evaluate the new criteria developed and implemented by commercial banks in South Africa (considering the prescripts of the New Credit Act, 34 of 2005 of the National Credit Regulator (NCR,2005) for evaluating applicants seeking financial support and identify areas of common interest between this criteria and the adapted South African Excellence Model.

Goal:

- To identify commercial banks in South Africa, particularly those easily accessible and widely used by smallholder farmers in the nodal areas for acquisition of credit and evaluate the criteria used by these financial institutions and the extent to which this criterion is used for loan approval.

Objective 4:

- To analyse the performance measurements' results that were obtained by means of measurements by the adapted South African Excellence Model for performance measurements done on smallholder farmers in the Free State Province.

Goals:

- Analyse the SAEM based on the information obtained from its implementation with the smallholder farmers in the Free State province,
- Determine factors affecting the adoption of recommended actions plans,
- Establish the reasons for not implementing them in full (if applicable), and
- Provide guidelines for future planning.

CHAPTER 2

MATERIALS AND METHODS

2.1 INTRODUCTION

Arising from the main objective of this research study, various sub-objectives and goals were formulated and the following materials and methods were respectively used to achieve the stated objectives and goals:

Objective 1: To determine the practices, constraints and attitudes of farmers with different backgrounds, farming types and philosophical viewpoints.

A general overview or assessment of literature on this subject matter was done to achieve this objective and the results are reported in Chapter 3.

Objective 2: To study the previous models developed and implemented to measure management performance in different organisations.

Various methods of research were used to achieve this goal and this includes: internet searches, literature review, personal interviews, journals reviews and previous studies/research done on this subject. The results can be seen in Chapter 3.

Objective 3: To evaluate the new criteria developed and implemented by commercial banks in South Africa for evaluating applicants seeking financial support and identify areas of common interest between this criteria and the South African Excellence Model Criteria.

Financial institutions were regarded as the most important source of information due to the financial support that they provide to farmers and were approached to source the criteria used during credit evaluation taking into

account the prescripts of the New Credit Act, 34 of 2005 (NCR, 2005). The main purpose was to acquire insight information on how the financial institutions view the applicants (mainly farmers) and how they measure their creditworthiness. The information collected was then compared with the criteria used in the South African Excellence Model and the results could be seen in Chapter 4.

South Africa has five main financial institutions, namely Standard Bank of South Africa, First National Bank of South Africa, the Land Bank of South Africa, ABSA Bank and the Ned bank. All these institutions are well known for providing financial aid to farmers, more especially the Land Bank, which focuses on financing smallholder agricultural businesses.

In this regard, a sample was taken in 2006 from four of the above-mentioned financial institutions in Bloemfontein (excluding Nedbank), because the banks chosen for sampling are accessible and are widely used by farmers particularly those that are far away from the big cities. This was done by means of a questionnaire interview with the managers who are responsible for small business finance in their respective institutions.

In order to make a preliminary assessment of financial institutions' credit evaluation procedures and their problems, financial institution representatives were interviewed by means of a preliminary questionnaire. Afterwards, some changes were made to the original questionnaire.

The questionnaire (see Table 4.1) was distributed amongst the representatives of the above-mentioned financial institutions. An appointment was then made to interview the representatives and to complete the questionnaires. During the interviews, the interviewer posed the questions while the interviewees wrote down the answers on the questionnaires. This was done to ensure that the interviewees/respondents understood the questions clearly before answering it.

Objective 4: Analyse the performance measurements results that were obtained by means of measurements by the adapted South African Excellence Model for performance measurements done on smallholder farmers in the Free State province.

Information from various organisations involved in the introduction, the adaptation and the rollout of the excellence model in South Africa was obtained by means of reports and personal interviews with managers and co-ordinators of this project. Trained facilitators of the excellence model and farmers who took part in the project were interviewed personally in order to obtain their experiences about the implementation of the model.

The Department of Agriculture, Forestry and Fisheries (DAFF) formed partnerships with the Knowledge Institutes. These partnerships were established to promote the rollout and implementation of the adapted Agribusiness Excellence Model for the development of SMME's in agriculture and related businesses (Department of Agriculture, Forestry and Fisheries, 2009).

The Free State University was identified as one of the important stakeholders in the agricultural fraternity, and was considered for a possible partnership to roll out and implement the model with novice farmers in the province which resulted in the signing of the Memorandum of Understanding between UFS and DAFF. Subsequently, the Centre of Excellence was established in 2008 to firstly, identify and coordinate training of facilitators of the model in the province, secondly, assess SMME's in agriculture using the adapted excellence model, and lastly, establish linkages for farmers assessed using the adapted model to improve access to information and technology, access to funding and access to commercial markets (Department of Agriculture, Forestry and Fisheries, 2009).

According to the reports obtained from Department of Agriculture, Forestry and Fisheries (2009), in the 2008/09 financial year, a group of 45 candidates was trained by the Centre of Excellence at the University of Free State to become facilitators of the adapted excellence model. Agricultural extension officers, officials from Small Enterprise Development Agency (SEDA) and officials from various municipalities within the province were part of the group.

It is claimed in the reports that 95 agricultural SMME's were assessed using the adapted South African Excellence Model as part of the candidate's reinforcement of the Portfolio of Evidence (PoE) but 69 PoE's were traced and used for the purpose of this research. Farmers who took part on this project were all from the nodal areas of the 5 district municipalities of the Free State province namely, Motheo, Xhariep, Lejweleputswa, Fezile Dabi and Thabo Mofutsanyane. The types of farmers used in the testing of this model were mainly smallholder farmers who obtained land through the Land and Agrarian Reform Programme of the Department of Agriculture, and Land Affairs. Their farming types ranged between livestock farming, crop farming and mixed farming.

Farmers were individually visited on their farms and interviewed by the trainee facilitators as part of the reinforcement of their portfolio of evidence. In essence trainees were requested to identify a farm project within their area of work and assess it using the adapted excellence model; this was done to ensure post assessment support by the trainee to that particular farm project. Farmers from these districts were interviewed and came to a total of 69 participants. The South African Excellence Model (SAEM) was adapted to best suit businesses within the agricultural fraternity and the model was used to determine the management performance levels of the various farmers. The results that were obtained were divided into 11 criterion parts and arranged according to the scale. This was done in order to obtain a performance percentage or points for each farmer, illustrating his degree of management performance.

To determine whether the action plans developed were implemented in order to improve the management performance of farmers who took part in the project, a follow up was made with some of the smallholder farmers who were assessed using the SAEM. The first step of the process was to identify smallholder farmers who are accessible and are willing to take part in this exercise. Forty farmers who were part of the SAEM facilitation process in the Free State province were identified, 35 were interviewed telephonically and 10 farmers in and around Motheo District were visited. They replied in the affirmative when asked whether action plans were developed and implemented following the assessment.

CHAPTER 3

LITERATURE REVIEW

3.1 INTRODUCTION

Farming in general comprises various factors, some of which are beyond the farmer's control. The farming environment is prone to rapid changes and this necessitates awareness of the environment and adaptability with regard to management. To be successful, a farmer should always be informed about the external environment, which changes continuously. The farmer must be aware of the opportunities and threats in the external environment that affect the enterprise so that he/she can restructure the farming enterprise in time to adjust to changes. A host of external factors influence a farm's choice of direction and action and, ultimately, its structure and internal processes. The external environment comprises the following factors: (1) economic; (2) political; (3) technological; (4) social; and (5) ecological (Boehlje & Eidman, 1984).

The information that a farmer requires for decision-making purposes can be obtained from two sources, namely external and internal sources. External sources refer mainly to other farmers, agricultural journals, and state and private institutions. Although the importance of such sources should not be underestimated, the most important source of information in farming remains the internal, known colloquially as the own record system or, more correctly, the farm management information system. This is so because every farm is unique with regard to aspects such as objectives, sensitivity to risks, management capability, financial strength and natural resources (Boehlje & Eidman, 1984).

In South Africa the agricultural sector is classified into two categories of farmers: smallholder farmers and commercial farmers. This is in contrast with the situation in other countries in the world, where one finds a whole range of farm sizes, ranging from very small farms to very large ones. When attempting to discuss the differences between smallholder and large-scale farming in South Africa, it is necessary to analyse the country's agrarian history. Here one finds overwhelming evidence of how various government policies and actions have reduced small-holder farming in South Africa to a state where it contributes very little to the economy as a whole and to the welfare and livelihoods of rural dwellers (Van Zyl and Kirsten, 1999).

The mistaken perception that small farms are less efficient than large farms stems from the illusion of modernity: A farm endowed with tractors and combine harvesters looks modern and appears efficient. The view that large, capital-intensive farms are more economically efficient than small farms is based on beliefs about economies of scale in farming. A large majority of agricultural production function studies find either no or negative economies of the scale in farming (Kay, 1986).

A study conducted by Van Zyl and Kirsten (1999) revealed that almost 25% of all farms in the commercial sector covers a land area smaller than 200 ha and almost 5% less than 10 ha. While these farms are small, they are considered to be commercially viable, although they make a small contribution to South Africa's total gross farm income.

Regardless of all the differences between different types of farms, there are certain tasks that an individual farmer, whether he is a smallholder or a commercial farmer, has to perform on his farm. These management tasks are planning, implementing the plans and controlling farming activities. These three aspects are regarded as the primary functions of management, and all management tasks can be classified accordingly.

3.2 THE MANAGEMENT PRACTICES AND CONSTRAINTS OF FARMERS

Entrepreneurs identify opportunities and establish businesses to produce the products and services that the market needs. They are the driving force behind the venture, but not necessarily the only key success factor. Businesses or ideas and new ventures of entrepreneurs, need to be managed (Cronje, Du Toit, Motlatla & Marais, 2005). Pearce II and Robinson (2003) describe the strategic management as the set of decisions and actions that result in the formulation and implementation of plans designed to achieve a company's objectives.

According to Cronje et al. (2005), management can be defined as the process followed by managers to accomplish a business's goals and objectives. More, precisely, it may be said that management is a process of activities that are carried out to enable a business to accomplish its goals by employing human, financial and physical resources for that purpose. Therefore, the management may be formally defined as the process whereby human, financial, physical and information resources are employed in order to reach the goals of an organisation.

An organisation may be described as consisting of people and resources, and certain goals that have to be reached. These predetermined goals, which may differ from organisation to the next, constitute the purpose of an organisation, because humans, as social beings, arrange themselves in groups to achieve goals that would be too difficult or too complex for an individual to achieve alone. However, organisations do not achieve their goals automatically; there is a further element that is necessary to direct all these resources and activities effectively toward goals. That indispensable element is management (Cronje et al., 2005).

Farm management is the collective term for various management strategies and methods that are employed to keep a farm productive and profitable. The process of this type of management is often associated with large commercial farms, although many of the same methods can be utilized with equal

success on a small family-owned farm. Depending on the size of the operation, the management process may require the services of a single farm manager or a group of managers who oversee various aspects of the overall project (Nell & Napier, 2005).

Nell and Napier (2005), indicate that given the dramatic changes being experienced in agriculture, there has never been a more opportune time to think and plan strategically for the future. Strategic management should, therefore, be a way of life to the modern farmer/management team who actively pursues future success. In some farming businesses the farmer(s)/manager(s) or farming family will manage the farm. In other farming businesses some management tasks may be delegated to anyone in the workforce or to consultants, in which case the management team should be involved in the strategic planning and management process. Strategic planning and management is also a continuous process in which information (historical, current and predicted data) flows through the farming business, and has an influence on the operational aspects, and takes the external agricultural environment into account (Nell & Napier, 2005).

Ellis (1999) argues that decision-making forms the basis of management in farming. This is imminent with the Land Reform Beneficiaries who in most cases have extensive farming experience working in farms for years, but are failing when faced with managing their own farming enterprises. Smallholder farmers face innumerable decisions daily in the management of their farm business. These decisions centre on resource allocation and income distribution. Smallholder farmers must decide what to produce, how to produce, how much to produce and when to produce, and how to allocate the income resulting from their business operations between family living needs, debt repayment and capital improvement. Several characteristics of smallholder farmers complicate their decision making. Firstly, the interdependence of the farm and home cause both economic and uneconomic considerations to enter the decision-making process. The income flow resulting from the farm business is allocated for family living purposes and capital formation in the farm business. For example,

smallholder farmers need to decide whether to remodel the kitchen or build a new silo or do both. This decision involves more than monetary considerations. Secondly, the farm manager who provides a major share of the managerial and labour resource to his business is responsible for both policy and operational decisions and for implementing these decisions in his farm business. This forces him to compromise the decision-making function. If he devotes all his time to making careful decisions and formulating policy, some key physical tasks are not properly performed. If he devotes all his time to performing the tasks involved in crop and livestock production, the overall management of his farm business suffers. In essence, farm managers economize the decision-making function itself (Ellis, 1999).

The South African agricultural sector is dualistic in nature. It comprises of a vibrant, well integrated and highly capitalized commercial sector on the one hand and fluctuating subsector on the other hand (Vink & Kirsten, 2003). According to the 2007 commercial Agricultural census (Statistics South Africa, 2009), there are 39 982 commercial farm units in the country, producing about 95% of the agricultural output, the overwhelming majority of which are situated on 87% of the total agricultural land. In contrast, and despite the land reform initiatives since 1995, the black subsistence and smallholder producers are predominantly settled in the former homelands and rural reserves, and produce on the remaining 13% of the agricultural land (Feynes & Meyer, 2003). The actual numbers of these black farmers are far from clear, as are their reasons for farming. A 1998 survey by ESKOM indicated that there were approximately 2.1 million smallholder farmers in South Africa (Coetzee, 2003).

The Strategic Plan for South African Agriculture (Department of Agriculture, 2001) indicates that there are approximately 240 000 smallholder farmers in South Africa who provide a livelihood for more than a million of their family members, and provide temporary employment for another 500 000 people (these farmers are thus probably more commercially oriented). It further estimates that there are approximately 3 million small-scale farmers who produce food primarily to meet household consumption needs.

Smallholder farmers are defined in various ways depending on context, country and ecological zone. This explains interchangeable use of the term ‘smallholder’ with ‘small-scale’, ‘resource poor’ and ‘peasant farmer’. Dixon, Abur & Watterbach (2005) explain that the term smallholder only refers to their limited resource endowment relative to other farmers in the sector. This view is incorporated in the definition of Ellis (1999) to be used in this study; smallholder farmers are farm households with access to means of livelihoods in land relying primarily on family labour for farm production to produce for self-subsistence and often for market sale.

These definitions have a similar theme in the characteristics of smallholder farmers, namely constraints in land and labour. The National Department of Agriculture (2005) suggests that the major characteristics of production systems of smallholder farmers are of simple, outdated technologies, low returns, high seasonal labour fluctuations and women playing a vital role in production. In addition, Dixon, Abur & Watterbach (2005) suggests that most smallholders have diverse sources of livelihood including significant off-farm income yet are still vulnerable to economic and climatic shocks.

Smallholder farmers differ in individual characteristics, farm sizes, resource distribution between food and cash crops, livestock and off-farm activities, their use of external inputs and hired labour, the proportion of food crops sold and household expenditure patterns. These differences and constraints highlighted above are typical characteristics of smallholder farmers in the Eastern Cape province of South Africa. It is important to note that with all these differences, smallholder farmers do contribute to the economy in different forms. The role of smallholder agriculture makes it significant to be either ignored or treated as just another small adjusting sector of the market economy (Delgado, 1999).

Land holdings in the former homelands are generally very small (Groenewald & Nieuwoudt, 2003) and are mainly used for subsistence purposes. According to Feynes and Meyer (2003), the majority of rural

inhabitants in the former homelands are the aged, women and children who reside on land more for social security purposes than for agricultural production and they estimate that arable land in the former homelands is between 11% and 16% of the total area. They further stress that cultivation of this land fluctuates significantly with between 40% and 80% being cultivated in any given year.

While many of the former homelands are situated in the eastern part of South Africa, which obtains significantly better rainfall than the western part, the steep terrain reduces the amount of arable land available and this is further exacerbated by the increases in soil erosion brought about by this terrain (Feynes & Meyer, 2003). Although the veldt grazing in these areas is of high potential, current stocking practices exceed the carrying capacity of the land in most of these areas. Subsequent overgrazing has severely affected the quality of arable land and in many areas it is no longer suitable for crop production (Feynes & Meyer, 2003). In a study in the Eastern Cape (Fraser, Monde & Van Averbeke, 2003) it was revealed that often when African farmers had access to crop land, but lacked access to implements and other resources, they rather concentrated on home gardens in order to provide some measure of food supplementation. They did not have the necessary resources to farm the large tracks of land they accessed and could not afford the associated risks and inputs, even when resources were pooled amongst five households (Fraser et al., 2003). Risky crop production is a result of South Africa's climate, the relative scarcity of water in most areas and the low potential of arable land available to subsistence producers (Ortmann & Machethe, 2003). Their poverty further exacerbates the situation preventing them from overcoming these circumstances by purchasing the costly inputs required and making long term investments. Consequently, they engage in more intensive and diverse practices and crops in order to reduce risk while striving for a measure of food security for the household.

Such households also diversify their sources of livelihoods and income in order to manage their risk (Coetzee, 2003). Consequently, off-farm income is sought and is part and parcel of what it means to be a subsistence farmer in

South Africa. Most subsistence farmers in South Africa tend to diversify their income and livelihood sources where possible; this is a strategy to spread and manage risk and is a buffer against poverty. While some livelihood and income might arise from agricultural production and the exchange of produce for other products or services, a greater percentage of income is earned from other sources such as remittances (including social grants and migrant labour contributions), purchase and sale of goods – especially consumables such as food, beverages and paraffin, the renting of animals for traction, sale of labour and off-farm full-time and seasonal employment in rural towns or on commercial farms.

Despite the complexity inherent in the subsistence agricultural sector, Hendriks (2003) seems to suggest that subsistence production renders two distinct nutritional benefits, first in the form of whatever food is produced for own consumption, and second in terms of freeing up income that can be spent on even more nutritious foods that the household might not be in a position to produce itself: While production for home consumption increases the availability of vegetables and increases micronutrient intake, the income 'savings' derived from home production seems to have more positive influences on the nutritional status of rural populations. Income replacement leads to increased purchases of energy-dense foods such as fats, oils and meat (Hendriks, 2003).

In a more recent study, Van Averbeke and Khosa (2007) reported that while income is the most important determinant of household food security in two villages in the Waterberg District Municipality, Limpopo Province, food obtained from various types of dry land agriculture contributed significantly to household nutrition. They argue that without farming the food security of these households would be reduced, especially for the ultra-poor. Furthermore, they note that small-scale irrigated vegetable production has the potential to substantially increase the amount of Vitamins A and C available to such households. Kirsten et al. (1998) conducted a survey of rural households in KwaZulu-Natal in order to discern the relationship between the incidence of taunting among children and the agricultural practices of their

households. He conclude broadly that: agricultural activities make a positive contribution to household nutrition, which suggests that designing effective programmes for improving agricultural productivity in the less-developed areas of South Africa could have a potentially positive impact on household and child nutritional status (Kirsten et al., 1998).

3.3 THE CONCEPT OF PERFORMANCE MEASUREMENT

Performance measurement is a fundamental building block of TQM and a total quality organisation. Historically, organisations have always measure performance in some way through the financial performance, be this success by profit or failure thought liquidation (Lev, 2001).

However, traditional performance measures, based on cost accounting information, provide little to support organisations on their quality journey, because they do not map process performance and improvements seen by the customer. In a successful total quality organisation, performance will be measured by the improvement seen by customer as well as by the results delivered to other stakeholders, such as the shareholders (Kanton Basel-Stadt, 2003).

A good performance measurement framework will focus on the customer and measure the right things. Performance measures must be (Bouwens and Abernethy, 2000):

- Meaningful, unambiguous and widely understood
- Owned and managed by the teams within the organisation
- Based on a high level of data integrity
- Such that data collection is embedded with the normal procedures
- Able to drive improvement
- Linked to critical goals and key drivers of the organisation.

3.4 METHODS TO MEASURE MANAGEMENT PERFORMANCE

Determining the management performance of farmers with different biographies is generally not easy, and often it is not measurable. When determining the degree of success that will be achieved when certain management functions are applied, the extent to which the environment influences these results should be taken into account (Van der Westhuizen & Viljoen, 1999).

As in any other business, there are various factors that have an impact on agriculture. It is clear that farming is influenced by changes in rainfall (e.g. distribution, intensity of rainfall and total rainfall), temperature (e.g. heat waves, early frost and late frost), humidity, and other climatic features. Because of the physiological character of crops and livestock production, limited changes can be made to the production process. The farmer can therefore follow good practices, but ultimately changes in the climate/nature can lead to a decrease in profitability. Similarly, a farmer may not follow good practices, but may receive a shower of rain at the right time. In this way he may obtain better yields than his “technically correct” neighbour who has not received rainfall. It is therefore not significant to calculate a farmer’s gross margin per hectare, profitability per Large Stock Unit (LSU) or Small Stock Unit (SSU), or farming income to determine the productivity or progressiveness of the farm. Although there are many methods to determine the productivity or performance of the performer (or his workers), there are not enough practical, reliable methods and instruments to determine performance (Van der Westhuizen & Viljoen, 1999).

The Directorate: Agricultural Economics of the Department of Agriculture at Glen used an objectivity questionnaire. The questionnaire was developed by Janse van Rensburg, Hamman and Heckroodt of the Directorate: Agricultural-Economics, Duvenhage of North West Co-Operation, Möller from the Free State Agricultural Union, as well as farmers who participated in the formulation (1998). Various questions are listed under the headings of

i) Financial systems record-keeping, ii) Labour management systems, iii) Labour management relationship, iv) Production management agronomy, v) Production management stock breeding and vi) Adaptation in given circumstances. Each practice of the farmer is assessed on a semantic differential scale, which ranges from plain/nothing to full/sufficient/full. This questionnaire was completed by farmers whilst monitoring their progress as well as their participation.

Van der Westhuizen (1997) used the perspectives / perceptions on farm management processes and decision making of various authors to develop/redefine a new integrated farm management model (see Figure 2.1).

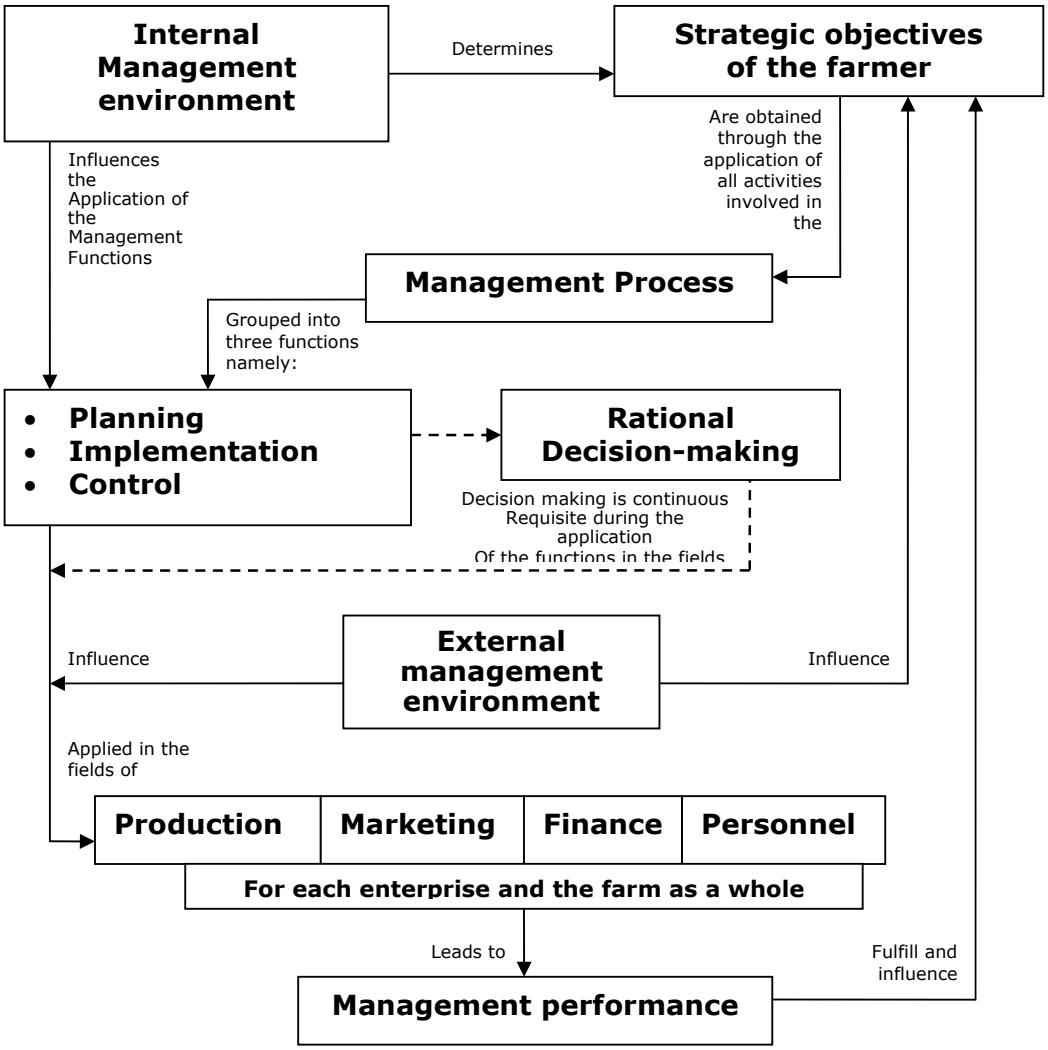

Figure 2.1: Adapted farm management model (Van der Westhuizen, 1997).

This management model was used as the basis for the development of a scale to measure the performance of farmers (Van der Westhuizen, 1997).

According to Van der Westhuizen (2010, email) this management model was adapted and is currently been used in the Toyota New Harvest of the Year Competition. This criterion is also used with the Free State Young Farmer Competition which started in 1996 and the national Toyota Agri-SA Young Farmer of the Year competition which started in 2004. The eight categories, with their respective weights, are the following:

a. **Vision** (4,0)
b. **Administrative system, budget** and **Records** (15,0)
c. **Production management** (30, 0) (The activity is divided into livestock and crop enterprises. Before a candidate is judged, he/she must give an indication of the contribution of all the enterprises to the farming turnover (Refer to question 1.20 of the entry form). The latter determines the relative weight of livestock and crops respectively. If the livestock enterprises contributes approximately 50% to turnover, 20 (of the 40) marks will be allocated to it and the remaining marks [20 = 50%] to crops. If the farmer has no crops, all 40 marks will be allocated to livestock).
d. **Marketing** (15,0)
e. **Maintenance** (4,0)
f. **Organisation and control of labour** (15,0)
g. **Professional profile** (17,0)

The sum of the above eight categories (A to I) determines the performance index (PI) of the farmer. The model thus measures performance but identification of weak points and subsequent corrective measures are left to the discretion of the farmer.

Rappaport's (1999) approach to building shareholder value recognises the incentive effects of over-reliance on periodic financial results and seeks to mitigate disincentives. Because all these models focus primarily on financial outcomes, they do not qualify as systems models, that is, they do not model the determinants of financial performance even within the boundaries of the firm.

More comprehensive PMMs include Otley's (1999) Performance Management Model (PMM), Ittner and Larcker's (2001) value-based management model, Epstein et al.'s (2000) APL model, Kanji's business score-card (Kanji and Moura e Sa, 2002) and the Balanced Score Card (BSC) (Kaplan & Norton, 1996, 2001). These models describe links among business decisions and outcomes, and serve to guide strategy development, communication, implementation, and feedback at multiple points along the value chain. Because these comprehensive PMMs are business models, reflecting inputs and both intermediate and final outputs, they generally include measures of operational, strategic, financial and non-financial performance. These models represent efforts to use organisational knowledge to model the firm as a system and implement management control.

Contingency-based research has shown that a firm's strategy can affect the design of PMM (Chenhall, 2003). Several studies found that firms following a more conservative strategy place more emphasis on cost control than those following a more entrepreneurial strategy (Chenhall, 2003). Bouwens and Abernethy (2000) found that firms going through a strategic change process, typically categorised as an entrepreneurial activity, place more importance on integrated PMM information. Finally, Abernethy and Brownell (2000) found that hospitals following a prospector strategy focused more attention on dialogue, communication and learning. No prior strategic-fit work was found leading to a strategy-based preference for attributes of in formativeness and incentives for improvement.

Walters (2002) indicated that several financial management initiatives are presently underway in the security cooperation community that will move management in the direction of a government that works better and is more

efficient costs less. Among these are Performance Based Budgeting (PBB) and Performance Based Costing (PBC). In the above DISAM Journal article, Walters addressed the details of PBB. This article complements that discussion, and focuses on PBC and its implementation. PBC provides more accurate cost information. The basic principle of PBC is to identify the business areas that add value to an organisation and to calculate direct materials, direct labour, overheads, etc., for the purpose of accurately estimating product cost. The product cost depends on the value added and costs incurred in those areas. Figure 2.2 represents the steps involved in establishing a PBC system.

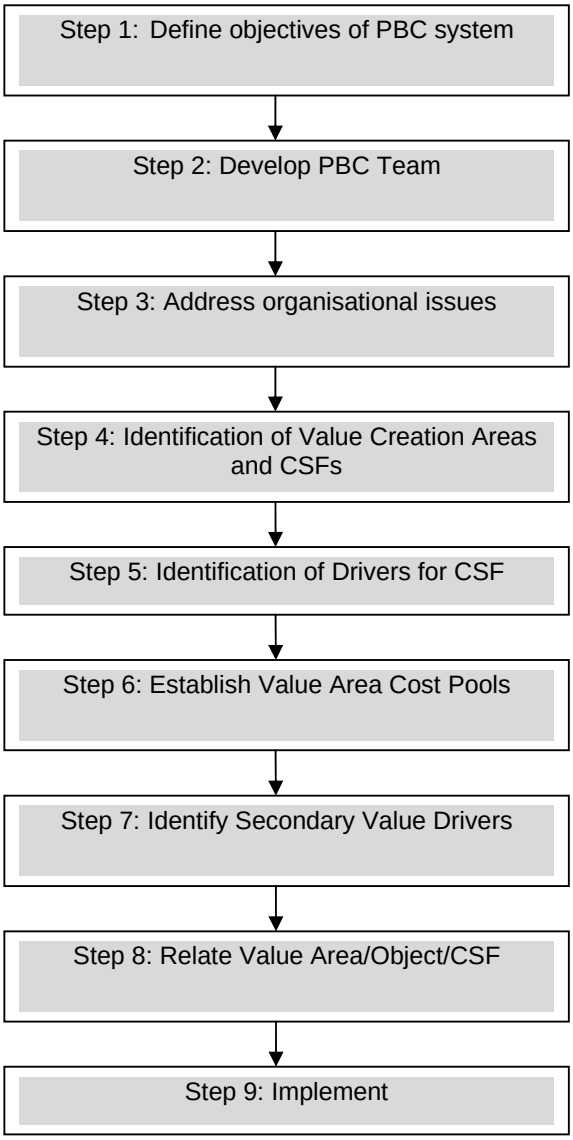

Fig. 2.2: Steps in PBC systems. (Walters, 2002)

The accuracy of product cost depends on the costs of value creation areas and corresponding drivers. Based on this principle, the steps required to design a PBC system is explained (Walters, 2002).

Step 1: Develop objectives for the performance based costing system

A PBC system may be desirable for a number of reasons. A company must carefully define the purpose of the system in terms of system objectives. Basic objectives of a PBC system include the following: (a) encourage proactive rather than reactive responses to markets, customers, and partners, (b) promote agility, and (c) create wealth (maximize profits). Other objectives would of course be necessary and would reflect organisational needs as well as the business environment.

Step 2: Develop a PBC team

The second step in designing a PBC system is to develop a team, which should include members from several disciplines and perhaps from different organisations in a virtual organisation or supply chain environment. Team size depends on the organisation's size, urgency of completion of projects and the availability of staff. The team members should have the full support of top management, which is only possible if top management is convinced that a new cost system is better than the old system. They should also be dedicated to the success of the system, and they should have the required knowledge and experience to make a significant contribution to system success.

Step 3: Address issues of organisation

A PBC system affects many aspects of an organisation and its partners. The potential impact of the new system, especially in terms of its effect on people and organisational relationships, should be considered. Many of these organisational impacts of a PBC system are not directly quantifiable, but to ignore them for that reason would be to ignore some of the most important issues, costs, and benefits (Lyne and Friedman, 1996). The particular nature

and circumstances of an organisation are highly pertinent to an assessment of how suitable would be the adoption of the PBC methodology.

Step 4: Identification of value-adding areas and CSFs

The Value Creation Area (VCA) is where a set of processes or procedures add value to products and services (value from the standpoint of customers) and hence to an organisation. They are aggregations of tasks (whether performed by people or machines) to satisfy the needs of customers (whether they are internal or external) (Miller, 1992). The identification of the critical success factors (CSFs) for a PBC system is a basic step because it sets the structure and scope of the system. CSF identification forces the accountant to determine what is actually happening in the relevant areas of a business and ensure that the costing system is built on reality (Innes, Mitchell & Yoshikawa, 1994). It is to be noted that an "area" can be defined as a set of activities that occur to create value for customers.

The identification of VCAs and corresponding CSFs involves finding out where in an organisation the most value is created for customers. The approach to this task must be systematic to ensure that all relevant areas are considered. The "relevant" areas may differ in type and location from one company to another due to the technology, size and company approach. For a small company, quality control is an important value-creating area, but for a big company quality control involves many areas that have broad scopes. Quality control responsibility in world-class manufacturing is the job of all employees.

The identification of micro and macro value-creating areas is important for a PBC system. The micro areas are focal points of improvement efforts. The micro areas are used to determine the costs of the macro areas, which are the aggregation of related micro activities. The primary purpose of a micro value area is to facilitate reporting of accurate product cost (Turney and Stratton, 1992). Visiting all the departments of a company, interviewing staff members, and listing the work done in each department can identify macro

and micro areas. Business process re-engineering is a valuable methodology that can assist in identifying macro and micro value areas.

Clearly, a decision is required on the number of areas, including CSFs, to be used in the PBC system. The decisions should be based on the degree of CSF relevance (potential to impact CSFs) associated with each area, the level of detail required to give acceptable cost visibility to management, and the degree of accuracy required for product cost planning and control. Common activities in organisations include purchasing, customer order processing, quality control, material handling, production control, inspection, distribution and maintenance (Miller, 1996). Most of these activities exist, and there are others that should be the focus of VCA/SCE (Supply Chain Efficiency) in the virtual enterprise/supply chain environment.

Step 5: Identification of CSF drivers in areas

A CSF driver is a factor that has a direct influence on cost and performance pertaining to the CSF or VCA. It provides the best explanation of why costs in a CSF cost pool change over time (Kennedy, 1996). The accuracy of product cost depends on CSF drivers. The cost of each area is an aggregation of the costs of primary drivers, and "product cost" is an aggregation of the costs of areas. These CSF drivers actually indicate how many specific resources an area consumes. Different types of resources are required to perform in each area; therefore, every area should be analysed in detail to create a list of all the primary CSF drivers. The estimation of cost for each driver should be very accurate.

Step 6: Critical success factors cost pools

A CSF cost pool is the total cost associated with a particular CSF. Each type of CSF has drivers that become cost elements in a CSF pool. If all the costs of a CSF are identified by cost drivers, then the costs can be directly charged to the CSF cost pool. If some resources are shared by several CSFs, then some measure of apportionment will be necessary. The basis of apportionment should reflect as closely as possible the extent to which each

activity consumes the shared resource. The best estimation of the apportionment rate does not adversely affect the accuracy (Keegan and Eiler, 1994).

There are two views of categories of costs that should be included in a CSF cost pool. The first view is that all traceable costs should be included to create a fully absorbed CSF cost pool. This is attractive conceptually, in that all resource consumption is taken into account in the area (CSF) cost, and so all the resources are therefore managed at the area level. In practice, fully absorbed CSF costs become very complex and create a hierarchy of cross charging which distorts the understanding of cost behaviour (Maritz, 2003). The second view is that the costs included in a CSF cost pool should be those relevant to the decision being made and provide decision-relevant information. A good rule is to strike a balance between excessive system complexity and the approach that suits the circumstances, information needs and requirements of an organisation. The area cost pool is traced to the cost object via secondary cost drivers.

Step 7: Secondary cost drivers

A secondary cost driver is a measure of the frequency and intensity of demands placed on activities by a cost object (Miller, 1996). It is used for assigning the cost of a CSF to a cost object. A cost driver is a variable used as the denominator in rates used to apply CSF costs to product or cost objects (Innes et al., 1994). The cost driver rate can be calculated as follows:

Selecting appropriate cost drivers is a creative process in the sense that it goes beyond traditional analyses in the search for the underlying reasons for cost. In choosing the secondary cost driver, the following criteria should be considered: (i) the cost driver selected should have a strong correlation with cost level in the CSF cost pool, (ii) the variable should be quantifiable and homogeneous, (iii) minimize the number of unique drivers (cost and complexity are directly correlated with the number of drivers), (iv) select cost drivers that encourage improved performance, and (v) select cost drivers that are already available and/or have a low cost of collection.

In practice, it may be possible that a number of cost drivers exist for the same cost pool, and in these circumstances, the exercise of professional judgment involving the application of the above criteria to a given situation will be necessary. For example, the purchasing activity's cost pool can have different cost drivers, such as the number of orders, number of suppliers and number of parts ordered. The objective is to pick the right number and the right type of cost drivers. Enough of the right types are needed to report accurate cost. Too many of them may be costly and create a system that is too complex to understand. These cost drivers differ greatly from the basis for overhead cost allocation in conventional cost accounting systems. They are the linkages between products and activities that represent opportunities for improvement in product or process design (Turney, 1992). It may not be possible to identify all cost drivers at the same level since they may span multiple organisational levels/units and even multiple organisations. In the traditional costing system, cost drivers are identified at the unit level and at the facility level.

Step 8: Cost object

A cost object can be any customer, product, service, contract, project or other work unit for which a separate cost measurement is desired. The cost object resides at the bottom of the cost assignment view of the PBC system. Most companies have two hierarchies of cost objects, one for products and another for customers (Turney, 1992). The ideal cost object is 'products' that are sold to customers. Linking the cost of a CSF/VCA directly to areas and activities that affect the cost of products is the basis for a product cost under a PBC system. To operate effectively, selected cost drivers should be clearly identified with specific products (Innes et al., 1994). If this does not occur, then the cost driver is effectively joined to several VCAs and may have to be split amongst them equally based on some proportional assignment. Now the question is how to allocate overhead costs. Perhaps one could use the value added, contribution to CSF and overall performance of an organisation. The allocation of such costs to products remains arbitrary even under a PBC system.

Step 9: Implementation

The costing of a product with a PBC system should be compared to that of the traditional costing systems (one already in use). There is a risk of increasing the cost of a product due to an increase in the cost of measurement. If the system is very detailed, then the accuracy of the system will increase, but at the same, the time measurement cost will increase. The cost of implementing and maintaining a complex system can become excessive. If the product cost is higher using this new system than with the traditional costing systems (due to measurement cost and complexity of system), then the PBC system should be re-examined, starting with the identification of value-creating areas. A simple solution for reducing system cost is a reduction in area details, but this reduction should be made carefully as it will affect the accuracy of product.

Smith and Kendall developed *BARS* to provide a better method of rating employees. 'BARS are normally presented vertically with scale points ranging from five to nine.' It is an appraisal method that aims to combine the benefits of narratives, critical incident incidents, and quantified ratings by anchoring a quantified scale with specific narrative examples of good or poor performance. It differs from "standard" rating scales in one central respect, in that it focuses on behaviours that are determined to be important for completing a job task or doing the job properly, rather than looking at more general employee characteristics (e.g. personality, vague work habits) (Dessler, 2005).

3.5 THE CASE FOR BUSINESS EXCELLENCE

South Africa's level of engagement with the global economy has increased tremendously since 1994. This is due mainly to the reduction of tariffs, the signing of new trade agreements, the establishment of trade relations with new trading partners and the inclusion of the country into multilateral trade organizations, which has ensured, that our incentives are World Trade Organization compliant. As a result, South Africa's levels of international trade

grew from approximately R167 billion in 1994 to R467 billion in 2001 (South African Quality Institute, 2003).

The global economy has brought radical change to the way people work. Organizational excellence is the best way to gain competitive advantage. Quality forms the cornerstone of developing much needed global competitiveness. It is a critical success factor in competitiveness, especially when doing business internationally. Models of excellence have been based on the quality and continuous improvement principles developed by quality experts like Juran and Deming. South Africa's engagement with the global economy has demanded a new set of requirements from businesses because of the need to gain entrance into a competitive international market. Our own markets have started to open up, which has resulted in businesses competing, in their own domestic market, with international rivals.

According to Ho (1999), organizations can achieve business excellence by developing a corporate culture of treating people as their most important asset and providing a consistent level of high quality products and services in every market in which they operate. In the 1980s many Western companies started to realize that quality can be a strategic differentiator. Emphasis shifted from quality control to quality assurance and the emergence of ideas such as company-wide quality control (CWQC), total quality (TQ) and total quality management (TQM). Many of the ideas embodied in TQM approaches have been used to develop excellence frameworks and all excellence models are founded on TQM concepts. Porter and Tanner (2004) define TQM as: "…*an approach that focuses on improving the organization's effectiveness, efficiency and responsiveness to customers' and other stakeholders' needs by actively harnessing people's skills and competencies in the pursuit of achieving sustained improvements to organizational performance".* At the core of TQM lies the achievement of business excellence, with results being the milestones of achievement and progress.

Quality and business excellence awards that recognize excellent organizational performance have become an important component of the productivity and quality promotion strategies of many countries. There are common themes that run through all the quality and excellence approaches. The excellence concepts are holistic in nature and provide for a complete integration of improvement activities into the organisation.

Porter and Tanner (2004) highlight the following core themes of excellence:

- Leadership
- Customer focus
- Strategic alignment
- Organizational learning, innovation and improvement
- People focus & Partnership development
- Fact-based processes management, Results focus, & Social responsibility.

3.5.1 DEFINITION OF BUSINESS EXCELLENCE

No clear definition of the term business excellence exists. The European Foundation of Quality Management (1999) defines excellence as: "…*outstanding practice in managing the organization and achieving results, all based on a set of 8 fundamental concepts"*. These concepts include:

- Results orientation,
- Leadership and constancy of purpose,
- Management by processes and facts,
- Customer focus,
- Continuous learning, improvement and innovation,
- Partnership development,
- People development and involvement; and
- Public responsibility.

Wikipedia (2006), the free online encyclopaedia, defines business excellence as “the use of quality management principles and tools in business management”. It is the systematic improvement of business performance based on the principles of customer focus, stakeholder value, and process management”.

Ritchie and Dale (as cited in Maritz, 2003) has the following to say about business excellence: “… business excellence is perceived as being a measure of how good we are and a means by which business can move forward. It was also seen as addressing the needs of both stakeholders and internal customers, and allowing the business to meet set goals and objectives. Business excellence is considered to be a long term process, concerned with key strategic issues such as developing core functional processes, to be the best, to get people performing better, and to develop a quality framework in order to provide excellent customer service. The end product of business excellence is to instill best practice within an organisation in order to support its values and strategic objectives, meet stakeholder expectations and maintain and exceed its competitive position”.

Edgeman, Dahlgaard, Dahlgaard and Scherer (as cited in Edgeman et al., 2005) have the following definition of business excellence: “*Business Excellence is an overall way of working that balances stakeholder interest and increases the likelihood of sustainable competitive advantage and hence long-term organisational success through operational, customer-related, financial, and marketplace performance excellence*”. Business excellence is a broad concept which relates to the continuous improvement of activities which leads to excellence in customer satisfaction, employee satisfaction, impact on society, supplier and partnership performance and business results.

3.5.2 BENEFITS OF BUSINESS EXCELLENCE

Traditionally, organizational performance and efficiency measurements were focused on cost containment, which hampered employee’s abilities to perform in jobs. Today, however, performance measurement systems of world-class

organizations are tailored to drive manufacturing and service business excellence. This entails superior performance as perceived by customers on issues such as quality, delivery time and service. Performance measures, therefore, should focus on competitive variables and should be aligned with critical success factors of the business.

Business excellence models provide focus for improvement initiatives and a gauge to measure progress. Making use of business excellence models to implement and measure improvements has many benefits and the National Institute of Standards and Technology (2003) highlights the fact that use of such models can:

- Accelerate a business's efforts at improvement.
- Energize a business's employees.
- Help businesses to gain an outside perspective.
- Help businesses to focus on results.
- Help businesses to learn from the feedback process.

Strydom (2002) also highlights the following benefits in addition to those stated above:

- A Business Excellence Model aligns objectives and activities throughout the Organization.
- Its holistic nature encourages organizations to link all initiatives together, rather than managing each entity separately.
- It provides a framework for organisations to develop their vision and future goals in a tangible, measurable way.
- It ensures that the correct measures are in place and that behaviours within the organization, including management style, are consistent with these measures.

The benefits of Business Excellence models are best illustrated by comparing successful organizations with less successful ones. The US 'Baldrige Index' is

one source of evidence of the financial impact of BE. This index was used over the past 10 years to track the share value performance of award winners against a control group of Standard & Poor's 500 companies. US$1000 was invested in Baldrige award winners and the subsequent growth of the investment was compared against that of the equivalent amount invested in the S&P 500 companies.

In the first eight years the Baldrige award winners outperformed the S&P 500 companies by as much as 6.5 to 1 on stock price performance. In 2003 and 2004, however, the Baldrige award winners underperformed against the S&P 500 companies. This was attributed to the relatively poor performance of technology companies and the index has now been discontinued (NIST, 2005 as cited in Mann and Grigg, 2006). A similar index was developed in Australia whereby AU$5000 was invested in BE award winners' stock in 1990. This was compared against the same amount invested in S&P companies. This index reported improved share performance of a factor of 3.5to 1 among award winners over thirteen years up to 2003 (SIRCA, 2003 as cited in Mann and Grigg, 2006).

Research done by Hendricks and Singhal (2000, as cited in Mann and Grigg, 2006) on the long term effect of implementing BE programmes showed that there is a strong link between BE and financial performance. This study found that US BE award winners experienced increases in income, sales and total assets during their respective post implementation periods as compared with their controls.

A PhD study by Hausner (1999, as cited in Mann and Grigg, 2006) of the University of Wollongong, Australia, examined the performance of 15 manufacturing firms that had participated in the Australian Quality Awards between 1992 and 1997 and which had demonstrated improvements against a range of KPIs. Hausner requested that the 15 firms list the 10 most important performance indicators and that they provide quantitative data in respect of those KPIs over an eight year period (1991-1998). He found a strong positive correlation between KPI improvement and total BE score and

concluded that striving for improvements against the Australian Business Excellence Framework is of interest to all stakeholders, as organizational success is tied to the effectiveness of its management practices as reflected through the ABEF.

A study on the Baldrige self-assessment results showed that there is also a strong correlation between “Enablers” and “Business Results”. The data indicated that organisations with excellent approaches to leadership, strategic planning, customer and market focus, information and analysis, human resource focus and process management are more likely to achieve excellent business results (Mann and Saunders, 2005).

Adopting Business excellence models and self assessment provides businesses with a structured approach to improving the organization. It also provides an assessment that is based on facts and not perceptions and a means to achieve consistency and consensus on the way forward. Thirdly, it provides a way to integrate various qualities initiatives into normal business operations and an approach to the measurement of progress through periodic self assessment (Shergold & Reed, 2006). A business excellence model can be used as a diagnostic tool that drives direction toward consistency in order to improve performance by integrating various change management and business efforts.

3.6 INTERNATIONAL QUALITY MODELS

Quality award frameworks have a long history. Japan was the first country to introduce the concept of excellence in 1951, when the Union of Japanese Scientists and Engineers (JUSE) established the Deming Prize award. The prize was established in honor of W. Edwards Deming who was the driving force behind the development of quality products and services which greatly enhanced the Japanese economy in the post World War II era. The Deming Prize was intended to recognize excellence in the implementation of Company-Wide Quality Control (CWQC). In 1987 the Malcolm Baldrige National Quality Award was launched in the United States of America. This is

the best known excellence award model and the world's most widely used excellence framework for self-assessment (Williams, 2008).

In 1988 Australia followed with the introduction of the Australian Quality Award (AQA) and in 1992 the European Foundation for Quality Management (EFQM) launched the European Model for Total Quality Management. Although this latter model was based mainly on the experiences of the Deming Prize and the Malcolm Baldrige Models, it offered a much greater business focus and its explicit reference to business results led to the development of the business excellence concept (Williams, 2008).

Figure 2.3 is a diagrammatic representation of the Deming Prize criteria. The criteria cover the roles of both the senior executives and the organisation. Firstly, the corporate policy process is examined, followed by the support activities such as organisation, information management and standardization processes and people management. Implementation consists of the quality assurance activities, maintenance/control activities and improvement activities. The results obtained are followed by implementation and finally planning for the future is examined.

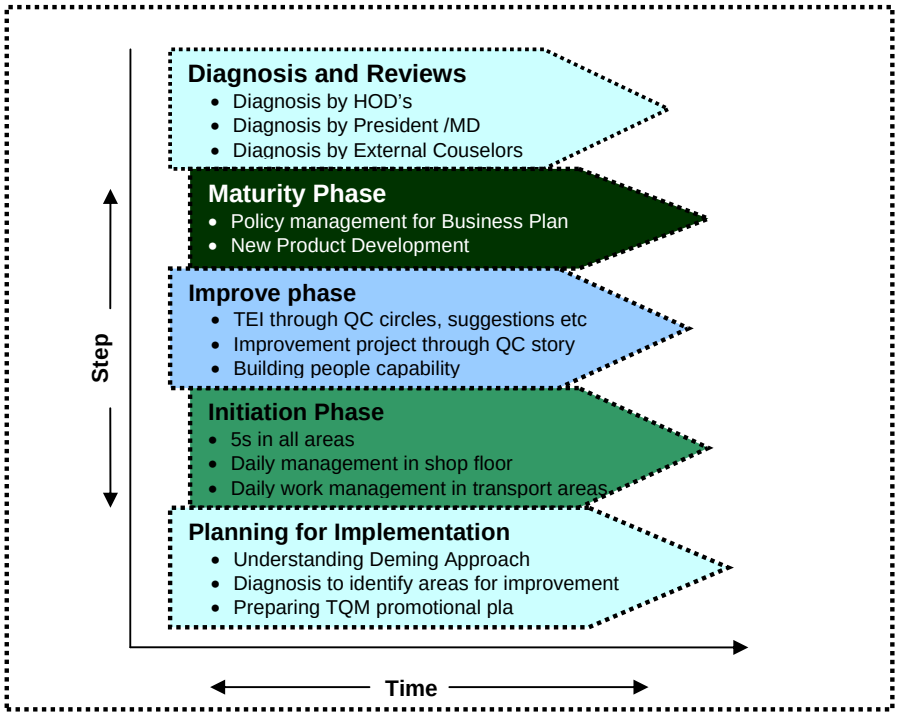

Figure 2.3: Diagrammatic representation of the Deming Prize Criteria (Williams, 2008)

The Malcolm Baldrige National Quality Award framework is probably the best known excellence model and the most widely used self-assessment tool. It was established in 1987 when Ronald Reagan signed the Malcolm Baldrige National Quality Improvement Act. The award was established to encourage US companies to adopt TQM to gain competitive advantage. The original purpose of the award was:

- To promote awareness and understanding of the importance of quality improvement to the nation's economy.
- To recognise companies for exceptional quality management and achievement.
- To share information on successful quality strategies and benefits derived from implementation of these strategies (Wikipedia, 2006).

Figure 2.4 depicts the Baldrige Award framework. It has four basic elements: the driver; system; measures of progress; and goal. The model is underpinned by two key assumptions. First, that top management leadership is the primary driver of business and, second, that the basic goal of the quality process is the delivery of continuous improvement of the quality and value of the products and services (Williams, 2008).

The *system* element is divided into four parts:

- Management of process quality
- Human resource development and management
- Strategic quality planning
- Information and analysis

The Baldrige award is based on the premise that management leadership and customer focus are the two key factors underpinning the efforts to achieve total quality within the organisation. Unlike the Deming Prize, the MBNQA is

non-prescriptive as it does not prescribe any particular method or tool to improve total quality (Williams, 2008).

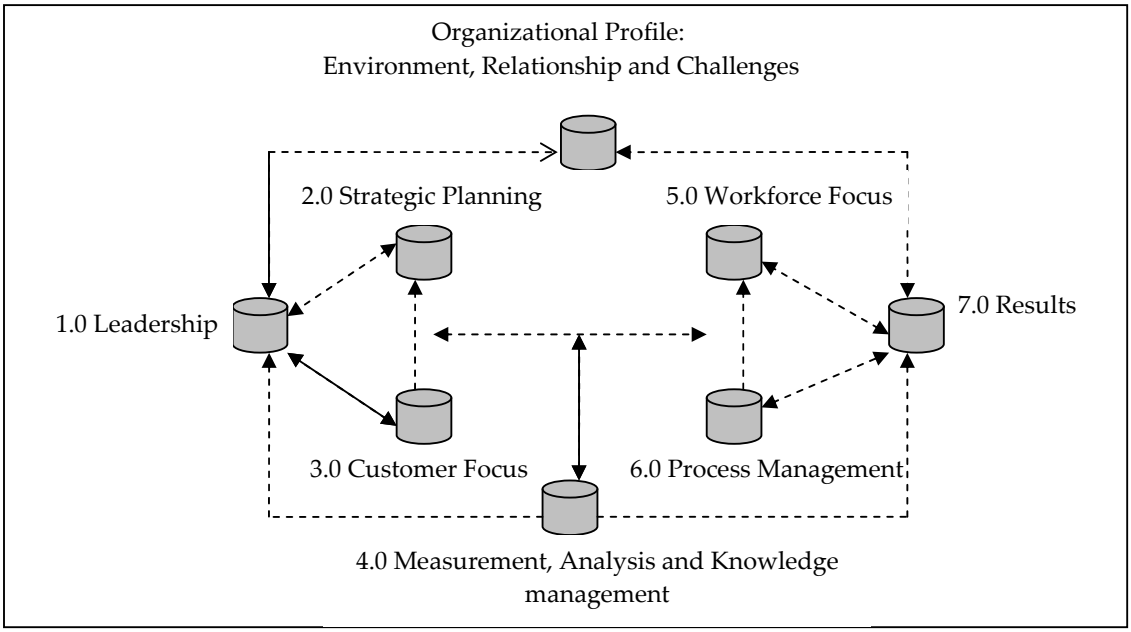

Figure 2.4: Malcolm Baldrige National Quality Award Framework (William, 2008).

The EQA was officially launched in 1991. Its primary purpose is to support, encourage and recognise the development of effective TQM by European companies. It is managed by the EFQM, which was established by 14 leading European corporations in 1988. The objective of the EFQM is to enhance the effectiveness and efficiency of European organisations through the promotion of the use of its model.

The aim of the quality award is twofold: Firstly, to accelerate the acceptance of quality improvement as a strategy for attaining global competitive advantage and, secondly, to stimulate and assist development of quality improvement activities (Williams, 2008).

Figure 2.5 depicts the EFQA framework. It is divided into two parts: enablers and results. The enablers include policies and processes that drive the business and facilitate the transformation of inputs to outputs and outcomes. The results measure the level of output and outcome attained by the

organisation. The model consists of nine elements, of which five are enablers and four are measures of results.

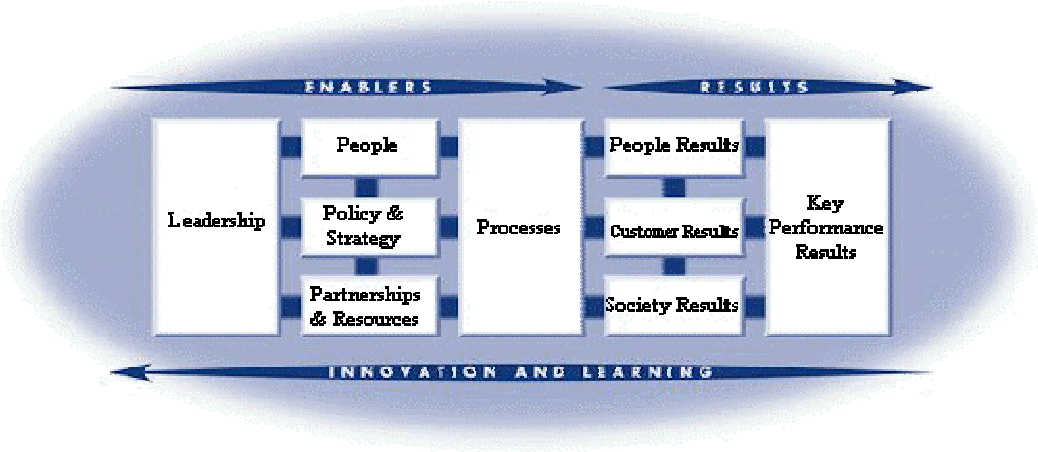

Figure 2.5: The European Quality Award Framework (EFQM, 1999)

The AQA was established in 1988 by Enterprise Australia to encourage indigenous companies to improve the quality of their offerings, raise their performance to world class level and to provide a benchmark for their achievements. It was administered by the Australian Quality Council until 2002. Currently it is run by Business Excellence Australia, a division of Standards Australia International Limited. The AQA assumes that an improved quality position will enable Australian firms to compete more effectively in an ever more competitive and global marketplace (Williams, 2008).

The AQA framework is depicted in figure 2.6. It has six examination categories. Management leadership and customer focus forms the main stimulus in the design of quality-orientated processes and procedures.

One of the underlying assumptions of the Australian model is that organisations need to ensure that internal customers are satisfied and that the workforce is happy and well motivated if the organisation wants to satisfy external customers Customer focus in every activity is an important condition for achieving improved quality (Williams, 2008).

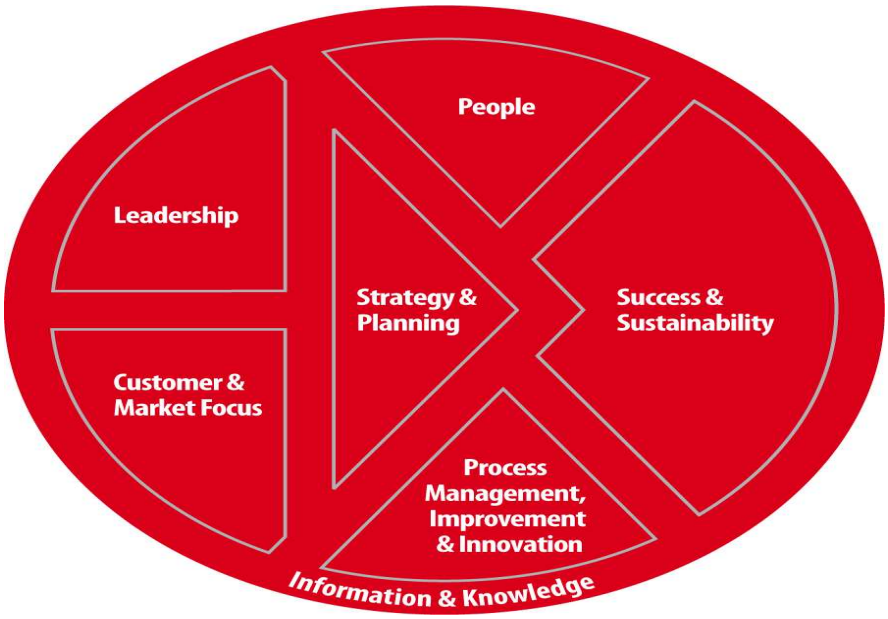

Figure 2.6: The Australian Quality Award Framework (Williams, 2008)

The Singapore Quality Award (SQA) was launched in 1994 with the aim of establishing Singapore as a country that is committed to world-class business excellence. The award is based on the standards that are found in the MBNQA, EQA and the AQA. The SQA encourages organisations to strengthen their management systems and capabilities to enhance their competitiveness.

SQA applicants are assessed in relation to the SQA criteria as depicted in Figure 2.7. The criteria are divided into three components: driver, system and results. The driver component consists of senior management, who set the organisational direction and seed future opportunities for the organisation. The system component comprises a set of well-defined processes for meeting the organisation's performance requirements. The results component focuses on the delivering of ever improving customer value and organisational performance. Each of the seven criteria categories within the excellence framework has a number of categories which consists of a series of excellence indicators. The indicators are a set of statements which reflects the approaches that excellent organisations will have in place (Williams, 2008).

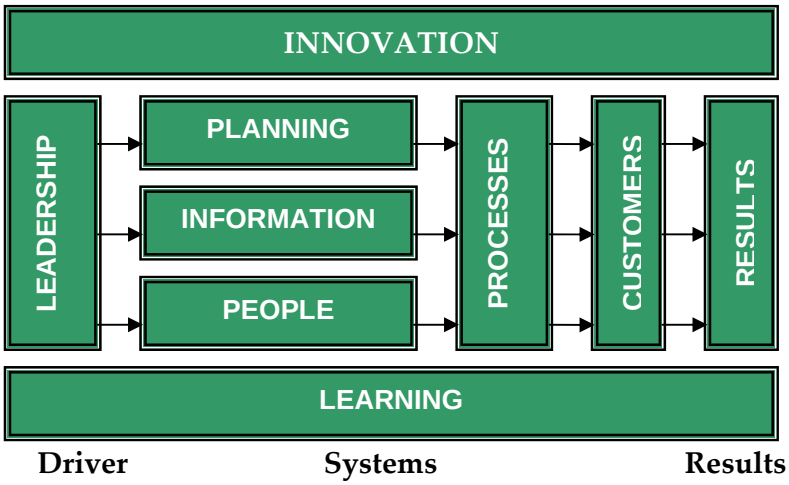

Figure 2.7: The Singapore Quality Award Framework (Williams, 2008)

3.7 THE SOUTH AFRICAN EXCELLENCE MODEL

The South African Excellence Model (SAEM) was launched in 1997 and is based on the experiences of the EFQA and the MBNQA. It is a non prescriptive framework for management education, organizational self-assessment and continuous performance improvement. It is non-prescriptive as there is no prescribed method for or approach to the achievement of sustainable organizational excellence. It is a powerful diagnostic self-assessment tool that can be used for identifying organizational strengths and areas for improvement (SOUTH AFRICAN EXCELLENCE FOUNDATION, 2001).

The SAEF was appointed as the custodian of the SAEM. The founding members comprised ABSA, Standard Bank, Daimler Chrysler SA, CSIR, Armscor, Groman Consulting Group, Ingersol Rand, Eskom, The Greater Metropolitan Council, Ideas Management, SAQI, SASQ and SABS. In the first four years after the launch, a further 150 ordinary members joined the SAEF. The SAEF's Articles of Association (AoA) were restructured in 2001, after which the membership of the 150 ordinary members was unilaterally

cancelled. After that only 10 organisations rejoined as new members under the revised AoA (Van den Heever, 2007).

The SAEA was South Africa's most prestigious award for organisational excellence. However, the South African Excellence Foundation ceased to operate in 2003. Entering for the SAEA competition was an opportunity for organizations to celebrate and showcase their performance excellence. Since the launch of the SAEM and the SAEA 40 companies had applied for the award between 1998 and 2002. Interest in the award, however, declined over the years. In 1998 twelve companies applied for the award, but only five applied in 2002. Only two companies have been awarded the SAEA; Honeywell SA was awarded the award in 2000 and Daimler Chrysler Parts Division won the SA Excellence Prize (Business Sector, Level 2) in 2001 (Van den Heever, 2007).

The SAEF was funded mainly by membership subscriptions, which were based on company turnover, and interest received from a trust fund which was established by the founding members. No direct funding was received from the government (South African Standard, Quality Assurance, Accreditation and Metrology, 2001). The revision of the AoA also resulted in severe funding problems which ultimately ended in the liquidation of the SAEF.

Research done by Williams (2008), on the retrospective view of the South African excellence model, revealed the shortcomings and factors which lead to the downfall of the SAEF as follows:

- The Level 1 criteria of the SAEM are excessive and too comprehensive for the developing world. Organizations who participated in the process had to score above 500 points in order to gain recognition in the award process but most organisations that participated scored only between 200 and 400 points.

- The SAEM also focused too much on business philosophy which is a developed concept. The fact that South Africa is still a developing country calls more for concepts such as operational effectiveness and efficiency. This is precisely one of the points that van den Heever highlighted with regard to the decline in interest in the SAEM.
- The SAEF was also not permitted to publish Award results and none of the winners published their results. It is important that an information resource is established that provides case studies and best practices from Award winners and leading organizations from all around the world. This is necessary in order to establish a benchmarking platform that organisations can use against which to measure their results. Because of the lack of this type of information resource, organisations that had done the assessment but did not qualify had no benchmark to measure improvements against. Providing programmes that assist organisations in integrating tools such as six sigma, knowledge management, quality systems, balanced scorecards, benchmarking and management standards within a business excellence approach will help organizations to understand where business excellence fits in and how it can enhance the competitive scope of organisations.
- The restructuring of the AoA led to the withdrawal of the DTI, SAQI and SABS from the membership pool, as well as the cancellation of the memberships of the 150 ordinary members. This resulted in liquidation, with no clear direction as to what will happen in the future to the SAEM and the SAEA.
- The IP rights to the SAEM were bought by the company Ideas Management South Africa, at an uncontested auction on the 7th of June 2007. This company will no longer ensure confidentiality and impartiality, which could result in both private and public sectors of the South African economy being unwilling to use the SAEM (Williams, 2008).

In the same research done by Williams (2008) it is suggested that there is a need to consider either an alternative as replacement, or the revival of the SAEM. The following opportunities may be considered towards an effective BEM for South Africa:

- The development processes of the model need to be addressed and should be improved through greater sharing of management research information between BEF custodians.
- The design of the model should be supported by more research, particularly in terms of score allocation for the Categories and Items.
- Successful practices of other custodians of business excellence should be leveraged.
- Awareness levels should be measured in order to enable the impact of strategic initiatives to be assessed. A unified approach towards raising levels of awareness, involving government, public institutions and management and trade associations, should be created.

As indicated in Figure 2.8, the South African Excellence model is divided into two parts (Enablers and Results) and it is comprised of 11 boxes each with the name. The enablers are the functions that organizations should execute well to achieve good results, whilst the results on the other hand, gives an indication that good or bad actions had been taken within an organisation by management.

The underlying assumption of the model is that customer satisfaction, people (employee) satisfaction, impact on society and supplier and partnership performance are achieved through leadership that drives policy and strategy, customer and market focus, people management, resource and information management and processes to achieve business results.

The principle elements of the SAEM are divided into enablers and results. The enablers are ***leadership*** elements which address how the behaviour of the executive team and all other leaders inspire, support and drive a culture of business excellence. The ***policy and strategy*** element examines the formulation, deployment and revision of organisational policy, objectives, vision, values and strategy into plans and actions. The ***people management*** element focuses on the organisation's development of its employees. It examines the development of skills, the recognition of improvement opportunities, and the empowerment of people. ***Customer and market focus*** addresses how organisations determine the needs, expectations and satisfaction of their customers and markets.

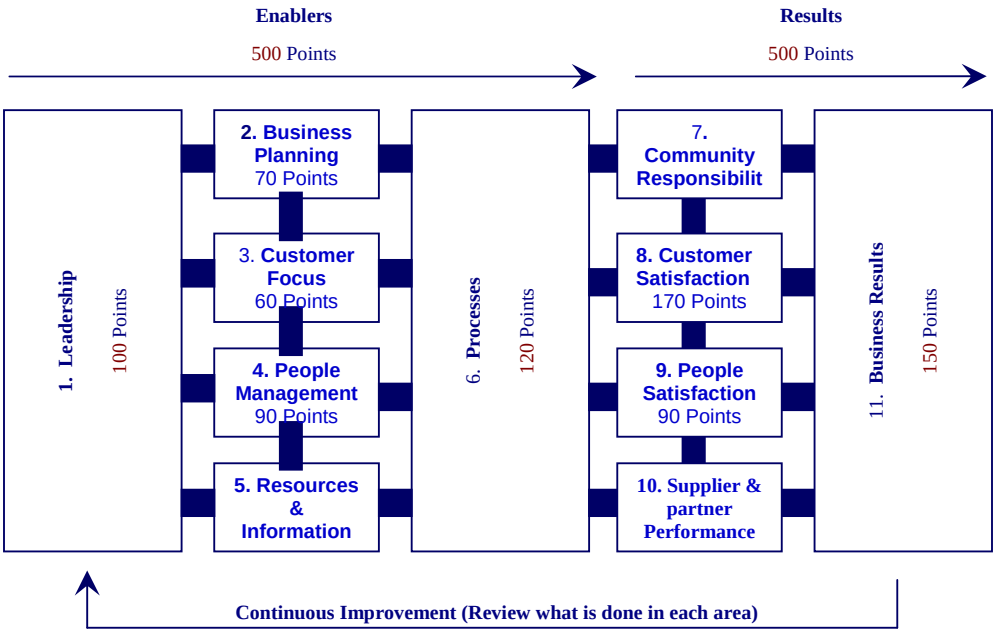

Figure 2.8: South African Business Excellence Framework (South African excellence foundation, 2001)

3.7.1 THE ADAPTATION OF THE SOUTH AFRICAN EXCELLENCE MODEL

The Directorate of Business and Entrepreneurial Development of the Department of Agriculture, Forestry and Fisheries (DAFF) established and funded a task team lead by Johann Basson (SAEF) to adapt the South African Excellence Model for Small & Medium Enterprises. The adaptation took place between 2004 and 2007 after DAFF purchased the rights to adapt and implement the model within the agricultural fraternity. Following as a result was the introduction of the adapted model named the South African Excellence Model (Entry Level) (Department of Agriculture, Forestry and Fisheries, 2009).

This model like the formal Excellence Award Model allows SMME's in agriculture and related businesses to assess their performance in terms of 11 criteria. However, the adapted model boosts distinctive features like reduced number of questions which are specific to the environment within which SMME's in agriculture, and related businesses exist as well as the compressed materials that allow convenient usage and facilitation (Department of Agriculture, Forestry and Fisheries, 2009).

CHAPTER 4
RESULTS AND DISCUSSIONS

4.1 INTRODUCTION

This chapter focuses on the information gathered from the four (4) financial institutions in 2006 and how banks view farmers requesting financial assistance considering the prescripts of the new credit act, 34 of 2005 (NCR,2005). It includes credit evaluation issues and financial issues and it further presents the analysed results obtained through the facilitation of the adapted South African Excellence Model with the smallholder farmers in the Free State province.

4.2 FINANCIAL INSTITUTIONS' CRITERIA FOR CREDIT EVALUATION

The respondents to the credit evaluation survey were asked several questions pertaining to their criteria of evaluating the applicants (specifically smallholder farmers) who request financial assistance in a form of a loan. Four financial institutions in Bloemfontein replied in affirmative when asked whether they evaluate farmers before any credit is granted.

In respect of land, it emerged that most financial institutions are likely to take land size into consideration during credit evaluation. Financially, institutions are more likely to be in favour of a farm project that has a good history in terms of financial records and performance. Therefore, farmers have to present all their financial statements if they request any financial assistance.

The farmer's level of education is also a good predictor of the success of credit evaluation. People who are well educated and experienced make a better impression during credit evaluation, as they are usually able to present good financial statements. Statistics also suggest that half of the financial institutions will determine the farm project's viability and its repayment ability.

In the latter case, the financial institution wants financial statements that reflect the performance of the farm project in general.

Table 4.1: Credit evaluation results from the financial institutions

Elements		**Data sources /banks**							
A	**Applicant / Farm**	**A**		**B**		**C**		**D**	
		Y	N	Y	N	Y	N	Y	N
1	Do you consider land size important during credit evaluation?	x			x	x		X	
2	Do you need information regarding the region characteristics of the farm?	x		x		x		X	
3	Do you need information regarding the nature of the farm project?	x		x		x		X	
4	Do you need information about the production techniques of the farmer?	x		x		x		X	
5	Do you question the skills level of the applicant?	x		x		x		X	
6	Do you check the credit history of the applicant?	x		x			x	X	
B	**Security position**								
7	Do you take security into consideration during credit evaluation?	x		x		x		X	
C	**Repayment ability**								
8	Do you determine the viability of the proposed project?	x			x	x			x
9	Do you determine the repayment ability of the project?	x		x		x		X	
10	Do you follow a specific programme during credit evaluation?	x		x		x		X	
11	Do you evaluate the farmer's past financial performance?	x		x		x		X	
12	Do you consider financial statements of the previous years important?	x		x		x		X	
13	Do you consider the balance sheets of the previous years important?	x		x		x		X	
14	Do you do ratio analysis during credit evaluation?	x		x		x		X	
15	Do you evaluate the current balance sheet of the farmer?	x		x		x		X	
D	**Loan conditions**								
16	Do you have a programme to determine aspects such as interests?	x		x		x		X	
E	**Investment**								
17	Do you have a programme to establish aspects like use of credit?	x		x		x		X	
F	**Risk**								
18	Do you have a programme to determine the risk level of applicants?	x		x		x		X	

From Table 4.1, it is evident that financial institutions view farmers who request financial support from them differently. It is indicative on the table that

even though farmers are required to provide security when applying for financial assistance, not all of the four institutions are adamant about that requisite. The table indicates that the majority (100%) requires an applicant to maintain a sound financial record that should be reflected on the balance sheet and the income statements. It can be seen on the table 4.1 that the level of skills does not play an integral part during credit evaluation. The table further indicates that 50% of the financial institutions will not consider the viability of the farm project, but all of the four institutions require that the farmer should be able to repay the loan as required.

The following will help the application for credit to succeed according to the financial institutions:

- Off-take agreements – to mitigate the risks taken by all partners
- Lease buy backs / rental agreements
- Niche and target markets – targeting of niche markets such as hospitals, prisons, general dealers, for specific needs.
- High-value production markets: the secondary markets are high-profit markets-how could the producer be part of it (pre pack cuts, certain sizes/ weight of broilers)
- Taking part in the more integrated value chain to maximize profits.
- Developing a much higher skills base to help the previously disadvantaged to survive the mainstream.

4.3 THE MANAGEMENT PERFORMANCE OF THE RESPONDENTS

4.3.1 SCORES OBTAINED IN THE EVALUATIONS

Figure 4.2 shows the scores obtained from different criteria of the SAEM in the assessment performed during the period 2008-2009. With the aim of observing the criteria profile and the variability between farmers, a graphic display of results obtained is depicted in Figure 4.1. Mean highest scores, greater than 40% were achieved for 'Leadership'. However, there was a large range spread, which indicates a large variability of the percentages obtained for the eleven criteria, particularly wide in 'customer and market focuses. The explanation of this finding is that smallholder farmers did not start to communicate with their clients to find out about their needs, so their punctuation was much lower than the rest.

If you look at the contents of the Excellence Model then you see this training process consists of the following:

Table 4.2: The South African Excellence Model Framework

Excellence Model Criteria	Maximum Score per criterion
1. Leadership	100
2. Business Planning	70
3. Customer and Market Planning	60
4. People Management	90
5. Resource Management	60
6. Processes	120
7. Impact on Society	60
8. Customer Satisfaction	170
9. People Satisfaction	90
10. Supplier and Partnership performance	30
11. Business Results	150
Total points	1000

If we look at the results of 69 smallholder farmers after the facilitation of the adapted excellence model process, then one get the following tendency:

Table 4.3: Summarized management performance of respondents

Excellence Model Criteria		Maximum score per criteria	Average score per criteria	Average percentage
1.	Leadership	100	45.6	45.6
2.	Business Planning	70	22.9	32.7
3.	Customer and Market Planning	60	15.0	25.0
4.	People Management	90	25.0	27.8
5.	Resources Management	60	16.9	28.2
6.	Processes	120	33.1	27.6
7.	Impact on Society	60	22.8	38.0
8.	Customer Satisfaction	170	64.9	38.2
9.	People Satisfaction	90	29.9	33.2
10.	Suppliers and Partnership Performance	30	9.6	32.1
11.	Business Results	150	47.3	31.6
Average				33.3

The management performance of respondents, grouped into intervals of eleven (11) percentage points, as indicated in Figure 4.1.

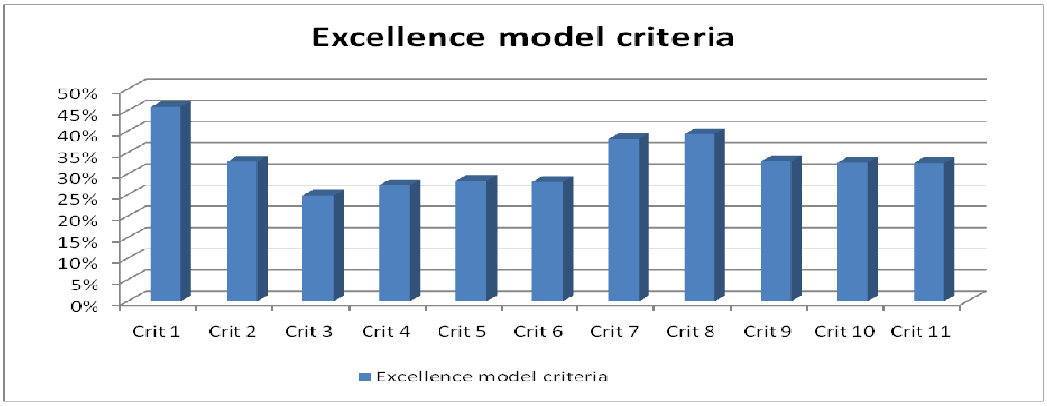

Figure 4.1: The management performance of respondents (n = 69) grouped into intervals of eleven (11) percentage points (average = 33%).

The management performance of farmers ranged from 25% to 45% as it can be seen in figure 4.1. The majority of farmers (37) had a performance range of 33 to 45 % whilst the minority (32) performed well between 21% and 32%. On average the management performance of farmers used in this research study was 33.3 percent. Figure 4.1 further depicts distinctly variances between the eleven (11) criterions. It can be seen in the pronunciations that the performance of the respondents in criterion 1, which translates to Leadership, is high than the rest of the other criterions in the chart. This indicates that the majority of the respondents are performing their leadership responsibilities like for example, interacting with employees, and suppliers to improve their business activities needed in the business well. Respondents performed low in criterion 3 (Customer and Market focus) which indicates that most farmers used in this study are not interacting effectively with customers to know about their needs and how they could contribute in improving the performance of their farms. The figure further depicts equal performance for Criterion 2 (Business Planning), Criterion 9 (People satisfaction), Criterion 10 (Supplier performance) and Criterion 11 (Business Results), which means that the majority of the respondents are gradually progressing towards performing activities in these criterions. If we look closely at the results, then one find that performance of farmers on criterion 3 (Customer and market focus = 25%) is not compatible with performance on criterion 8 (Customer satisfaction =38%) and the same goes with criterion 4 (People Management = 27%) and criterion 9 (People satisfaction =33%). It would be expected that people and customers who are not well managed are likely to be dissatisfied; seemingly, this is not the case in this scenario?

In Tables 4.4 to 4.15 the performance indexes of farmers, reflecting performance scores for each question of the 11 criterions are shown. The score for each question in the excellence model ranges between 0 to 3 and the 0, 33, 67 and 100 is the rating of each column for scoring (0 = Not started / 0%, 1 =Some progress / 33%, 2 = Good progress / 67% and 3= Fully achieved / 100%).

Table 4.4: Respondents performance on Leadership

Criterion 1: Leadership (100 points = 10 %)				
Questions		Maximum score	Average score	Average %
1a.1	Do you set goals to satisfy your customers?	3	1.09	36%
1a.2	How do you involve all the employees in setting these goals?	3	0.94	31%
1b.1	Are you active and personally involved in improvement activities?	3	1.20	40%
1b.2	How do you encourage employees to participate in improvement activities?	3	1.64	55%
1c.1	How do you know and meet the needs of your customers?	3	1.61	54%
1c.2	Do you talk to your suppliers to share ideas to improve performance?	3	1.52	51%
1c.3	Do you talk to your partners to share ideas to improve performance?	3	1.52	51%
1d.1	Do you recognize and reward achievements by employees?	3	1.38	46%
1e.1	Do you comply with all laws and regulation relevant to your business?	3	1.42	47%
Total average		**3**	**1.37**	**46%**

The management performance of farmers for criterion 1 (Leadership) ranged from 31% to 55% as it can be seen in Table 4.4. The table shows distinctly variances between the nine (9) questions of the criterion 1. It can be seen in the pronunciations that the performance of the respondents in question 1b.2, which translates to encouraging employees in participating in improvement of farm activities, is high than the rest of the other questions in the table. Respondents performed low in question 1a.2 which indicates that most farmers used in this study are not involving all the employees in setting goals for their farm business and also question 1a.1 which shows that farmers do not produce according to the needs of the market or customers. The average performance of 46% for criterion 1 is relatively high than the rest of other criteria though.

Table 4.5: Respondents performance on Business Planning

Criterion 2: Business Planning (70 points = 7 %)				
Questions		Maximum score	Average score	Average %
2a.1	Do we collect information from our suppliers about opportunities and threats/risks to the business?	3.0	0.8	26%
2a.2	Do we collect information from our customer about opportunities and threats/risks to the business?	3.0	1.1	35%
2a.3	Do we collect information from employees about strengths and areas for improvement in the business?	3.0	1.0	32%
2a.4	Do we collect information from our partners about strength and area for improvement in the business?	3.0	1.1	37%
2a.5	How do you know and meet the needs of your customers?	3.0	1.1	35%
2a.6	Do we use the collected information to develop a business plan?	3.0	0.9	31%
2b.1	How do we develop a Business Plan (for up to 2 years) for future growth in the customer groups we have selected?	3.0	1.0	32%
2b.2	Do we develop sales forecasts and budgets for the business?	3.0	1.1	35%
2c.1	Do you have a management structure in place to make sure the Business Plan works?	3.0	0.9	31%
2c.2	Do employees understand their roles and responsibility in implementing the business plan?	3.0	1.1	37%
2d.1	Do you compare the actual results (Criterion 7 to 11) of the business with the plans and targets we have developed?	3.0	0.9	29%
2d.2	Do we correct any problem areas in performance?	3.0	1.0	32%
Total average		**3.0**	**1.0**	**33%**

The management performance of farmers for criterion 2 (Business Planning) ranged from 26% to 37%. Points obtained for questions in this criterion varied greatly. The performance of farmers in question 2a.1 is lower than the rest of the questions; this indicates that farmers in general do not interact effectively with suppliers to find out about business opportunities and risks. Respondents performed well in question 2a.4, this shows that the majority of farmers used in this research are interacting with stakeholder like government about improvements plans and also question 2c.2 which shows that farm employee's roles and responsibilities are clarified to make the business plan work. The average performance of 33% for criterion 2 is relatively consistent with the average overall performance.

Table 4.6: Respondents performance on Customer and Market Focus

Criterion 3: Customer and Market Focus (60 points = 6 %)				
Questions		Maximum score	Average score	Average %
3a.1	Do we select customers groups that will give profitable growth opportunities?	3	0.75	25%
3a.2	Do we find out what products and services our customers need from our business?	3	0.65	22%
3a.3	Do we talk to our customers to get useful information about the quality of our products and services?	3	0.65	22%
3b.1	How do we use the information from our customers to improve the products and services that our business provides?	3	0.80	27%
3b.2	Do we set written targets for sales growth from each of our selected customers?	3	0.93	31%
3b.3	Do we set written targets for sales growth from each of the products and services of the business?	3	0.74	25%
3c.1	Do we keep in contact with our customers before and after sales?	3	0.74	25%
3d.1	Do we have a system to record all complaints from our customers?	3	0.70	23%
3d.2	How do we make sure that all complaints from customers are solved quickly?	3	0.74	25%
3d.3	Do we analyze all customer complaints and take action to prevent them from happening again?	3	0.81	27%
Total average		**3**	**0.75**	**25%**

The management performance of farmers for criterion 3 (Customer and Market Focus) ranged from 22% to 31% as it can be seen in Table 4.6. The above table shows distinctly variances between the ten (10) questions of criterion 3. The performance of the respondents in question 3a.2 and 3a.3 is relative low than the rest of the other questions in the table. It means that farmers do not talk to customers or markets to determine the quality of the products and services needed by these markets and customers. Respondents performed well in question 3b.2, which indicates that most farmers set written sales targets for sales growth from each of their selected customers. The average performance of 31% for criterion 3 is slightly below the average performance of all criterions.

Table 4.7: Respondents performance on People Management

Criterion 4: People Management (90 points = 9%)				
Questions		Maximum score	Average score	Average %
4a.1	Do you plan for the number and the type of people needed to make the Business Plan work?	3	1.00	33%
4a.2	Do you train new employees about the business and their work?	3	0.75	25%
4a.3	Do you develop employees through work experience and training?	3	0.80	27%
4b.1	Do we set and update performance targets with employees to achieve our business plans?	3	0.71	24%
4b.2	How do we support employees to do their jobs?	3	0.94	31%
4b.3	How do we review the results that each employee achieves?	3	0.80	27%
4c.1	How do we manage working relationships between employees?	3	0.87	29%
4c.2	How do we know if employees are satisfied with their jobs?	3	0.91	30%
4c.3	Do you know and respond to your people's need?	3	0.84	28%
4c.4	Does the business protect its people and the local community from any health and safety aspects of its product, machinery and operation (such as noise, waste disposal and the population of water and air)?	3	0.71	24%
Total average		**3**	**0.83**	**28%**

The management performance of farmers for criterion 4 (People Management) ranged from 22% to 33% as it can be seen in Table 4.7. the scores in questions 4b.1 and 4c.4, is lower, which indicates that respondents do not set targets with employees to achieve the desired results and they also do not protect people and community members from health and safety aspects. Respondents performed well in question 4a.1, which indicates that most farmers do plan for the number and type of people needed to make the business plan work. The average performance of 30% for criterion 3 is slightly below the average performance of all criterions.

Table 4.8: Respondents performance on Resources Management

Criterion 5: Resources Management (60 points = 6 %)				
Questions		Maximum score	Average score	Average %
5a.1	How do we obtain enough money to make the Business Plan work?	3	0.88	29%
5a.2	How do we manage cash flow in line with our forecasts and budgets?	3	0.83	28%
5a.3	How do we manage possible risks to the business?	3	0.80	27%
5b.1	Do we tell our suppliers and partners of the need and quality requirement of our business?	3	0.88	29%
5c.1	Does the business fully uses and maintains its building and other assets to make a business plan work?	3	0.80	27%
5c.2	Do we obtain and manage stock of raw material, finished goods and suppliers to make the business plan work?	3	0.86	29%
5d.1	Do we find new technologies and equipment that will improve the performance of the business?	3	0.88	29%
Total average		**3**	**0.85**	**28%**

The management performance of farmers for criterion 5 (Resources Management) ranged from 27% to 29% and scores on questions 5a. 3 and 5c.1 are lower. It is evident those respondents do not have risk mitigation strategies in place and that the available resources on their farms are not fully utilized to achieve the business results. It is very much interesting to discover that the majority of the smallholder farmers used in this research knows about the available technologies and where to find financial support to make their businesses work. The average performance of 30% for criterion 3 is slightly below the average performance of all criterions.

Table 4.9: Respondents performance on Process management

Criterion 6: Process Management (120 points = 12 %)				
Questions		Maximum score	Average score	Average %
6a.1	Have we identified and listed all the production processes that affect the results of our business?	3	1.01	34%
6a.2	Have we identified and listed value-adding processes to our products?	3	0.83	28%
6a.3	Have we identified and listed all other business processes that affect the results of our business?	3	0.74	25%
6b.1	Have we identified and listed all other factors that affect the results of our farm?	3	0.74	25%
6b.2	Do we use safety system in the production processes?	3	0.75	25%
6b.3	Do we make sure the processes deliver the products needed by our customers?	3	0.80	27%
6c.1	Do we ask for and use ideas from our people to improve the processes?	3	0.90	30%
6c.2	Do we test the new or changed process before using them?	3	0.88	29%
6c.3	Do we review the new or changed process to make sure they work and produce the results we want?	3	0.74	25%
6c.4	Do we train our people before using new or changed process?	3	0.81	27%
Total average		**3**	**0.82**	**27%**

The management performance of farmers for criterion 6 (Process Management) ranged from 25% to 34% as it can be seen in Table 4.9. The above table shows distinctly variances between the ten (10) questions of criterion 6. It can be seen in the pronunciations that the performance of the respondents in question 6a.3, 6b.1, 6b.2, and 6c.1, is relative low than the rest of the other questions in the table. It means that farmers do not identify and list other farming processes and factors that affect the output of their farms and they also don't use safety systems in the production processes. Respondents performed high in question 6a.1, which indicates that most farmers do know all production processes that affect the results of their farms. The average performance of 27% for criterion 6 is slightly below the average performance of all criterions.

Table 4.10: Respondents performance on Impact on Society

Criterion 7: Impact on society (60 points = 6 %)				
Questions		Maximum score	Average score	Average %
7a.1	How many local community projects are we involved in?	3	0.90	30%
7a.2	How many people do we employ from our local community?	3	0.99	49%
7a.3	Do we comply with all laws, by-laws and regulations affecting our local community?	3	1.22	41%
7a.4	Do we protect the local community from all health and safety aspects of the business' products, machinery and operations (such as noise, waste disposal and the pollution of water and air)?	3	1.46	33%
Total average		**3**	**1.14**	**38%**

The management performance of farmers for criterion 7 (Impact on society) ranged from 30% to 49% as it can be seen in Table 4.10. Respondents performed low in questions 7a.1, and this is because the majority of them don't contribute to local community development projects. Respondents performed good in question 7a.2, and this could be attributed to the fact that the majority of the employees on their farms are from the local communities. The average performance of 38% for criterion 7 indicates that there is some progress in this criterion.

Table 4.11: Respondents performance on Customer Satisfaction

Criterion 8: Customer Satisfaction (170 points = 17 %)				
Questions		Maximum score	Average score	Average %
8a	Do we have results that show the number of products and/or services delivered to customers on time?	3	0.67	22%
8b	Do we have results that show the number of defects in our products and services?	3	0.99	33%
8c	Do we measure the increase or decrease in sales from our customers?	3	1.29	43%
8d	Do we have results that show the number of customer complaints?	3	1.64	55%
Total average		**3**	**1.14**	**38%**

The management performance of farmers for criterion 8 (Customer Satisfaction) ranged from 22% to 55% as it can be seen in Table 4.11. The above table shows distinctly variances between the four (4) questions of

criterion 8. It can be seen in the pronunciations that the performance of the respondents in question 8a, is relative low than the rest of the other questions in the table. It means that farmers do not have written results of the products and/or services delivered to customers on time. Respondents performed high in question 8d, which indicates that the majority of farmers have results that show the number of customer complaints. The average performance of 38% for criterion 8 indicates that there is some progress in this criterion.

Table 4.12: Respondents performance on People Satisfaction

Criterion 9: People Satisfaction (90 points = 9%)				
Questions		Maximum score	Average score	Average %
9a	Do you have results that show how productive employees are (such as output per employee/team?)	3	0.62	21%
9b	Do you have results that show how often employees are recognised and rewarded for good performance?	3	0.78	26%
9c	Do you have results that show how many employees left the business?	3	0.96	32%
9d	Do you have results that show the number of workplace injuries and accidents?	3	1.12	37%
9e	Do we have results that show absenteeism and sick leave by our employees?	3	1.26	42%
9f	Do you have results that show the number of disputes and grievances from your people?	3	1.23	41%
Total average		**3**	**1.00**	**33%**

The management performance of farmers for criterion 9 (People Satisfaction) ranged from 21% to 42% as it can be seen in Table 4.12. The above table shows distinctly variances between the six (6) questions of criterion 9. Performance on question 9a is lower than the rest of the other questions in the table simply because respondents do not have results that show how productive employees are (such as output per employee/team?). Respondents performed well in question 9e, which indicates that the majority of farmers have results that show the number of workplace injuries and accidents. The average performance of 33% for criterion 9 indicates that there is some progress in this criterion.

Table 4.13: Respondents performance on Impact on Supplier performance

Criterion 10: Supplier Performance (30 points = 3%)				
Questions		Maximum score	Average score	Average %
10a	Do we have results that show the number of defects in the products and services supplied to our business?	3	0.77	26%
10b	Have we identified and listed value-adding processes to our products?	3	0.90	30%
10c	Do you have results that show the supplier deliveries on time at agreed cost?	3	1.04	35%
10d	Do you have results that show the use of working space/ land in the business?	3	1.04	35%
Total average		**3**	**0.94**	**31%**

The management performance of farmers for criterion 10 (Supplier Performance) ranged from 26% to 35% as it can be seen in Table 4.13. The above table shows distinctly variances between the four (4) questions of criterion 10. It can be seen in the pronunciations that the performance of the respondents in question 10a, is relative lower than the rest of the other questions in the table. It means that farmers do not have results that show the number of defects in the products and services supplied to their farm businesses. Respondents performed high in question 10c and 10d, which indicates that the majority of farmers have results that show the supplier deliveries on time at agreed cost and the use of working space/ land on their farms.

Table 4.14: Respondents performance on Impact on Business Results

Criterion 11: Business Results (150 points = 15%)				
Questions		Maximum score	Average score	Average %
11a	Do we measure the cost of rejected or defective products?	3	0.62	21%
11b	Do we have results on the Income (sales) of the business?	3	0.67	22%
11c	Do we have results on the balance sheet?	3	1.06	35%
11d	Do we have results showing cash flow?	3	1.45	48%
Total average		**3**	**0.95**	**32%**

The management performance of farmers for criterion 11 (Business Results) ranged from 21% to 48% as it can be seen in Table 4.14. The above table shows distinctly variances between the four (4) questions of criterion 11. It

can be seen in the pronunciations that the performance of the respondents in question 11a, is relative lower than the rest of the other questions in the table. It means that farmers do not have results that show the cost of rejected or defective products. Respondents performed high in question 11d, which indicates that the majority of farmers have results that show the cash flow in and out of their farming businesses. The average performance of 32% for criterion 11 is slightly under par of all other criterions.

4.4 MANAGEMENT PERFORMANCE IMPROVEMENT PLANNING

Action planning is the process that guides the day-to-day activities of an organization or project. It is the process of planning what needs to be done, when it needs to be done, by whom it needs to be done, and what resources or inputs are needed to do it. It is the process of making your strategic objectives operational (EFQM, 1999). Most action plans consist of the following elements:

- a statement of **what must be achieved** (the outputs or result areas that come out of the strategic planning process);
- a spelling out of **the steps that have to be followed** to reach this objective;
- some kind of time schedule for when each step must take place and how long it is likely to take (**when**);
- a clarification of who will be responsible for making sure that each step is successfully completed (**who**);
- a **clarification of the inputs/resources** that are needed.

The basic principle of the excellence model is that an organisation should assess its performance against the eleven criteria of the model and action plans should be developed where necessary, to address shortcomings identified during assessment. The same principle was applied during the implementation of the adapted SAEM with the smallholder farmers in the Free

State province. The following areas for improvement were identified and action plans were developed to improve performance:

Table 4.15: Areas for Improvement and action plans developed

Areas for improvement identified		Action plans developed	
No	**Description**	**Activity**	**Type of evidence**
1a.2	How do you involve all the employees in setting these goals?	Allow employees to submit proposals about goals and standards.	Proposals by employees about goals and standards.
2a.1	Do we collect information from our suppliers about opportunities and threats/risks to the business?	Collect information from partners and suppliers and use it to develop a business to drive the processes.	Information from suppliers and partners about opportunities and threats for the business
2a.6	Do we use the collected information to develop a business plan?	Share goals developed from the collected information	Bankable business plan
2b.1	How do we develop a Business Plan (for up to 2 years) for future growth in the customer groups we have selected?	Draw a three year human, production and financial plan.	Bankable business plan
2c.1	Do you have a management structure in place to make sure the Business Plan works?	Develop a task team programme and support them	The business structure used and responsibilities for each.
2d.1	Do you compare the actual results (Criterion 7 to 11) of the business with the plans and targets we have developed?	Review the business plan & results.	Written results achieved in each area of the business compared to plans and targets.
2d.2	Do we correct any problem areas in performance?	List problems that affect the performance of the farm.	Corrective action taken in different areas of the business
3a.1	Do we select customers groups that will give profitable growth opportunities?	Identify loyal customer group.	Sales records and trends and minutes of meetings with customers
3a.2	Do we find out what products and services our customers need from our business?	Analyse sales records, and feedback from customers	Statements of how customer's needs have been researched and are met.
3c.1	Do we keep in contact with our customers before and after sales?	Weekly visit or phone calls to customers	Telephone log report & customer visit report
3d.1	Do we have a system to record all complaints from our customers?	Obtain and record customer complaints.	Customer complaints list
4a.2	Do you train new employees about the business and their work?	Develop an induction programme	Induction programme

4b.1	Do we set and update performance targets with employees to achieve our business plans?	Set a standard of performance or result to achieve with an employee.	Individual and team targets and how they were reviewed.
4c.4	Does the business protect its people and the local community from any health and safety aspects of its product, machinery and operation	Provide employees with safety clothing, Proper waste disposal practices & spraying mechanism and timing.	Poster of OSHACT
5a.3	How do we manage possible risks to the business?	Identify all types of risks and their causes.	The risks that are analysed, security systems and insurance policies.
5c.2	Do we obtain and manage stock of raw material, finished goods and suppliers to make the business plan work?	Quantify and place securely the stock needed for production	List of stock needed during a production period.
6a.3	Have we identified and listed all other business processes that affect the results of our business?	Have regular meetings with customers to identify their needs.	Sales records
6b.3	Do we make sure the processes deliver the products needed by our customers?	Identify quality guidelines and follow them.	Quality assurance programme
7a.1	How many local community projects are we involved in?	Identify community projects	List of projects involved in.
8a	Do we have results that show the number of products and/or services delivered to customers on time?	Calculate the number of deliveries to customer per month.	Records of deliveries to customer per month.
9a	Do you have results that show how productive employees are (such as output per employee/team?)	Record products per person per day/month on the farm	Number of products produced per person or team.
9b	Do you have results that show how often employees are recognised and rewarded for good performance	List awards and recognitions per month	The number of times that people and teams are recognised and rewarded.
10a	Do we have results that show the number of defects in the products and services supplied to our business?	List mistakes, errors and defects in the product and services supplied to the Business by suppliers	The number of defects in the products and services supplied to the Business
11b	Do we have results on the Income (sales) of the business?	Record the total amount of money flowing into the business daily / monthly.	Income statements

Table 4.15 above shows the areas for improvement which were identified through the implementation of the SAEM and actions plans which were developed by the trainee facilitators to address shortcomings and improve management performance of respondents. Implementing the South African

Excellence Model in a smallholder farm can make a huge difference, by measuring and showing performance and developing action plans to improve performance. Smallholder farmers did not know how to go about obtaining knowledge and information from their customers. They didn't know how to determine their customers' needs and level of satisfaction. Working through the Customer and Market Focus element of the SAEM helped them to realise that information about the needs, wants and satisfaction levels of their customers was missing.

The resources and information management criteria of the SAEM helped smallholder farmers to put action plans and procedures into place to measure the satisfaction of their customers. It enabled them to determine what product specifications and service requirements are important to their customers as well as how the needs of their customers change.

The process side of the model helped them realise that a system is missing to track all customer complaints to ensure that all complaints are quickly resolved and that preventative action is taken to avoid future occurrences of the same problems. The people management criteria of the SAEM helped the smallholder farmers to put an action plan into place to address the development of the human resources of their farming businesses.

The SAEM helped the farmers to assess their existing situation and put action plans into place that will make an improvement for them, even though it did not help them to formulate their strategy.

It is clear from the analyses of the results that there is no doubt that smallholder farmers can benefit greatly from implementing the SAEM. However, the study also highlighted some of the shortcomings as far as guidance in the drawing up of actions plans and the sustaining of business excellence is concerned. During the course of the research, it became clear that the SAEM could be used to measure management performance and development of action plans to address shortcoming identified through the assessment process. However, the deciding factor for the success of the

implementation of the SAEM is the implementation of the action plans developed. If action plans which were developed were not successfully implemented then the whole processes of improving management performance cannot be validated. Action plans are developed to assist an organisation on its way to excellence and the implementation of actions plans is the most critical part of the whole process. It is therefore, imperative even in this case that farmers must be assisted to develop and implement the action plans successfully.

The most consistent message from the farmers was that the SAEM provided a framework and coordinating basis from which their farming businesses could actually plug in various tools, techniques, and improvement projects that were planned in their farms. The farmers further stated that the model encourages structure and goal setting. They also described the model as a framework that assists in providing a conceptual framework to overview the farm and the issues through which farming improvement can be structured. Farmers highlighted goal setting, issues and steps to assure quality, and concepts but none referred to markets driving farming forward in strategic terms. Some of the farmers referred to the SAEM as a framework within which initiatives or activities of a non-strategic nature and of a more tactical or operational nature were not discussed. This highlighted the fact that in farming it is the operational level that is the real driver of the model in practice and not the strategic level.

It emerged that 37 out 40 (92%) of the respondents were unable to implement the action plans which were developed during the facilitation process. They cited the following as some of the challenges for implementing the SAEM and the action plans developed:

- The SAEM does not formulate nor does it properly evaluate strategy. It ensures a rigorous planning process, but it does not assist in giving strategic direction.

- The SAEM facilitation process was not only rigorous, but that it was also bureaucratic and time consuming. Even simplified approaches consumed considerable time. It is difficult to understand the model within a short time scale due to its complexity.
- The SAEM is an audit tool of what is already happening and does not indicate best or preferred practise in a farming context.
- The SAEM does not show how production processes can be defined.
- The SAEM does not recognise the indigenous practices of the smallholder farmers and as a result fails to enhance the skill that smallholder farmers possess.
- Weightings allocated to criterions in the SAEM are not a true reflection of how agricultural businesses should be e.g. Resources Management = 60 points where as People Management = 90 points.
- Guidance was not given to farmers on how to use the results obtained from the assessment, how to prioritise improvement opportunities and how to implement an action plan in order to turn the opportunities into reality.
- Farmers were not involved in the development of action plans and it became difficult for them to start with the process of the implementation and continuous training and support was not provided.
- There was no continuous follow up on projects to ensure that they stay on track and to ensure that results are achieved in order to avoid the assessment process becoming an exercise with no results.

4.5 A COMPARISON BETWEEN THE SAEM AND THE CRITERIA FOR CREDIT EVALUATION

The South African Excellence model and the criteria for credit evaluation are viewed as diagnostic tools that could be used to provide a snapshot view of the business at a certain point in time. Therefore, a comparison between these two tools is imperative to determine their differences and similarities and find synergy in the improvement of the management performance of smallholder farmers using either one of these tools.

When analysing the South African Excellence Model and its contents and comparing it to the criteria used for credit evaluation one finds an overwhelming evidence of synergy and differences as indicated on Table 4.16 below.

Table 4.16: Characteristics features of SAEM and criteria for credit evaluation

Characteristics of SAEM	**Characteristics of a criteria used for credit evaluation**
Leadership (10 %)	Financial performance
Business planning (7%)	Security position
Customer and Market Focus (6%)	Repayment ability
People management (9%)	Loan conditions
Resources management (6%)	Investment
Processes (12%)	Risk analysis
Impact on society (6%)	
Customer Satisfaction (17%)	
People Satisfaction (9%)	
Supplier and Partnership (3%) performance	
Business Results (15%)	

The adapted South African Excellence Model like the original excellence model allows SMME's to measure their performance against the eleven criterions as it can be seen on the above Table 4.16, whereas on the other hand the financial institutions are concerned with only six factors in their criteria for credit evaluation. The above Table 4.16 further depicts that the criterions used in the excellence model have different weightings that determines their level of importance where as the criteria for credit evaluation does not show different weightings for each factor within.

Table 4.17, shows the differences and similarities between the tools in terms of the questions asked and the criterion used.

Table 4.17: Characteristics of SAEM (questions) and criteria for credit evaluation

Questions from the criteria used for credit evaluation	**Corresponding criterion of the SAEM**
1. Do you consider land size important during credit evaluation?	Business Planning
2. Do you need information regarding the region characteristics of the farm?	Business Planning
3. Do you need information regarding the nature of the farm project?	Business Planning
4. Do you need information about the production techniques of the farmer?	Process Management
5. Do you question the skills level of the applicant?	Process Management & leadership
6. Do you check the credit history of the applicant?	None
7. Do you take security into consideration during credit evaluation?	Resources & information management
8. Do you determine the viability of the proposed project?	Business Planning
9. Do you determine the repayment ability of the project?	Business Results
10. Do you follow a specific programme during credit evaluation?	None
11. Do you evaluate the farmer's past financial performance?	None
12. Do you consider financial statements of the previous years important?	Business Results
13. Do you consider the balance sheets of the previous years important?	Business Results
14. Do you do ratio analysis during credit evaluation?	Business Planning
15. Do you evaluate the current balance sheet of the farmers?	Business Planning
16. Do you have a programme to determine aspects such as interests?	Business Planning
17. Do you have a programme to establish aspects like use of credit?	Business Results
18. Do you have a programme to determine the risk level of applicants?	Business Planning

The questions asked in the criteria for credit evaluation were grouped with criterions of the excellence model. This was done to compare the questions asked in the criteria for credit evaluation with the criterions in the excellence

model. The aim was to establish whether there were close similarities and differences between the tools and whether the SAEM could be used to prepare farmers for credit evaluation.

It can be seen in Table 4.17 that, although it appears that the tools are different in terms of their examination categories, there are a number of areas of common interest which include:

- Leadership
- Business Planning
- Process management
- Resources and Information Management
- Business Results

All the tools discussed above promote visionary leadership with adequate skill about farming; and recognise quality achievements of farmers. All of them use a framework of criteria that seek to assess farmers quality related management initiatives. This criterion requires a farmer to show evidence of innovative production processes, proper resources and information management, and spread deployment of these approaches to achieve financial results.

This comparison shows that the excellence model uses a comprehensive approach in measuring management performance. The excellence model categories are fragmented and cover a wide spectrum within the farming business. The majority of the questions asked by financial institutions during credit evaluation are included in some of the criterions of the excellence model and that gives an indication that the excellence model could be used to assess and continuously improve management performance of farmers by creating actions plans that will address areas for improvement and ultimately, prepare farmers for credit evaluation.

4.6 GUIDELINES FOR FUTURE PLANNING

The original SAEM follow the self-assessment process like the international BEMs discussed in this paper, but DAFF decided to train officials to become facilitators of their adapted SAEM. Their argument is that the self-assessment process is time consuming and smallholder farmers, due to their level of education will not be able to complete the process correctly. But the process followed had its own shortcomings: Firstly, time and money was spent to train facilitators and could have been used to support farmers in the process, and secondly, trained facilitators were not committed to the whole project and could not complete it accordingly.

The Vanguard Guide to Business Excellence is one approach that has been recommended as a guideline in approaching the self-assessment process differently. The Vanguard approach to self assessment is depicted in figure 4.2. Based on this approach, the best starting point is the understanding of what and why do you want to measure in management.

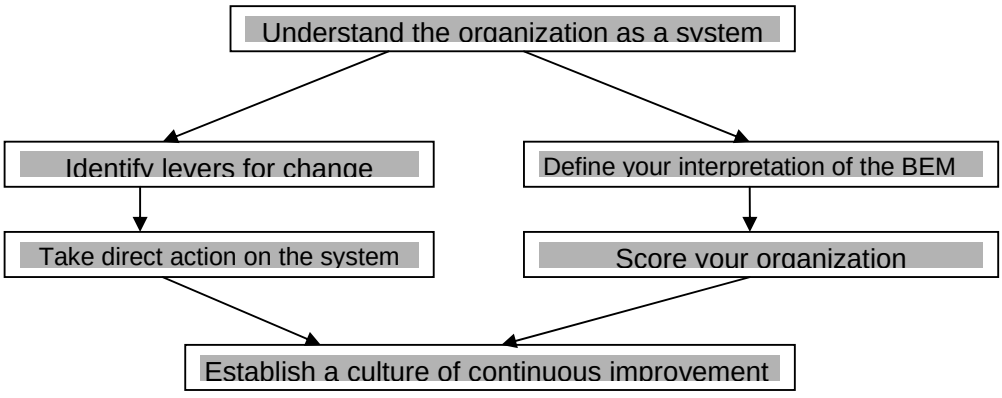

Figure 4.2: The Vanguard Approach to Self-Assessment. (Seddon, 2006).

A number of critical success factors were derived in the external organisations use of the excellence model and this could also be the case of the smallholder farmers.

- The strategic, planning and business improvement process must be owned by one team.
- Ownership of the model by the farmers is a prerequisite to lever the benefits of the excellence models. It requires a transformational style to effectively lead the organisation and a need to understand the nature of improvement approaches.
- Willingness to learn and develop is also important.
- Farmers must have strong relationships with external partners including their customers, suppliers, academic bodies, and stakeholders to succeed in the whole process.

4.7 SUMMARY

The main focus of the research reported in this dissertation was to address the following main research problem:

There are tools to measure management performance in the diverse agricultural and cultural society of South Africa and the available models are widely used for adjudication hence they seem to focus only on measuring rather than improving management performance.

Arising from the above research problem and the main goal of the research, the following research sub-problem statements were formulated:

First sub-problem statement: What are the indigenous management practices and constraints of smallholder farmers?

Second sub- problem statement: What are the available models used to measure the management performance in agriculture and other sectors domestically and internationally?

Third sub-problem statement: What are the new criteria developed and implemented by the commercial banks in South Africa (considering the

prescripts of the new credit Act of 2005) for evaluating applicants seeking financial support?

Fourth sub-problem statement: What is the management performance of farmers measured using the adapted excellence model for management performance measurement?

In concluding this study, this chapter pays attention to verifying that the above main research problem and research sub-problems have been addressed. This is done by summarising and highlighting the major findings of chapters 2, 3, 4, and 5 in which the four sub-problems have been discussed.

Below is a summary of the findings of the research and recommendations, where necessary, regarding each of the four research objectives that were addressed in this dissertation.

The study of practices and constraints of smallholder farmers, as reported in Chapter 3 and 4, was done with a view to addressing the first sub-problem.

The second sub-problem is addressed in Chapter 3, which reports on the models used for management performance measurement within the agricultural fraternity and other business sectors globally. Regarding the management performance measurement models, the findings show that:

- Various types of models, among them Just-In-Time (JIT), Total Quality Management (TQM), Performance Measurement Model (PMM), Performance Based Costing (PBC) and Excellence Models like Deming Prize Criteria, Baldridge National Quality Framework, European Quality Framework, Australian Quality Framework and the Singapore Quality Framework , are being used to measure the management performance of various organisations and projects globally.

- The adapted South African Excellence Model (SAEM) is a powerful diagnostic self-assessment tool that allows organizations to identify their strengths and areas for improvement, and to score their performance against internationally recognized criteria for performance excellence.

The review and examination of the features of various types of excellence models showed that the adapted South African Excellence Model does not differ much in terms of the evaluation categories from the European excellence framework. It was established that other features of the SAEF model were irrelevant to the agricultural environment and were therefore not incorporated when adaptation of the South African Excellence Model used by the Department of Agriculture, Forestry and Fisheries was completed.

As with the major excellence models discussed in this paper, the idea of the adapted SAEM for SMME's in agriculture and related businesses is that organisations conduct a self-assessment by comparing their organisation to the criteria of the Model. The logic behind the model is that results, which include financial and business results, customer satisfaction, people satisfaction, supplier and partnership performance and impact on society; are achieved through acting on enablers such as the leadership, policy and strategy, people management, resource and information management, processes and customer and market focus.

In this dissertation the adapted SAEM framework, as well as the implementation and scoring of the framework, has been discussed. The model is measurement based and follows a structured process like the SAEF model. It acts as a catalyst for change and action and encourages dialogue about strategy and performance improvement. Ongoing review, learning and feedback are imperative to ensure that business excellence is achieved in farming and related businesses. The SAEM, like the five international excellence models discussed in this paper, is based on the concepts of formulating quality policies, assigning responsibility for quality to top management, managing quality procedures and control, reviewing of

improvement processes, and delegation of authority and the empowerment of the workforce.

To address the third sub problem, a questionnaire survey was conducted on four banks and the results were compared with the adapted SAEM. The discussion and analysis of the findings are reported in Chapter 4, and these reveal that:

- Financial institutions play an important role in providing financial assistance to farmers. In this regard the Land Bank, which has a mandate from the government to assist emerging business entrepreneurs, is especially important. These organisations are providing finance to different types of farmers, including emerging and established farmers.
- Most of the financial institutions evaluate farmers before they grant any credit to them. In respect of land, it emerged that most financial institutions are likely to take land size into consideration during credit evaluation. Financially, institutions are more likely to be in favour of a farm project that has a good history in terms of financial records and performance. Therefore, farmers have to present all their financial statements if they request any financial assistance.
- The farmer's level of education is also a good predictor of the success of credit evaluation. People who are well educated and experienced make a better impression during credit evaluation, as they are usually able to present good financial statements. Statistics also suggest that half of the financial institutions will determine the farm project's viability and its repayment ability. In the latter case, the financial institution wants financial statements that reflect the performance of the farm project in general.
- The questions in the criteria for credit evaluation are included in the adapted South African Excellence Model and the adapted model, if well implemented could be used to prepare farmers for credit evaluation.

The credit evaluation measures are usually used to reduce the finance risk for both the financier and the applicant and in this case all farmers are obliged to conform to these measures. Furthermore, the adoption and use of these measures assist farmers in limiting their use of credit and improve their management performance as well.

To address the fourth sub-problem, the results obtained from the implementation of the adapted South African Excellence Model carried out for a wide range of smallholder farmers in the Free State were analysed. For this purpose, data from the implementation agents of the adapted SAEM was obtained and analysed. This provided an ideal opportunity where detailed observations could be easily recorded to evaluate the accuracy and applicability of the model to measure and improve the management performance of smallholder farmers. The discussion and analysis of the findings are reported in Chapter 4, and these reveal that:

- The collective performance of farmers according to the model ranges between 25% to 45% on an average of 33.3 percent; the majority of farmers (37) had a performance range of between 33% to 45% whilst the minority (32) performed well between 31% and 32%.
- The results further depict distinctly variances between the eleven (11) criterions. It can be seen in the pronunciations that the performance of the respondents in criterion 1, which translates to Leadership, is high than the rest of the other criterions in the chart. This indicates that the majority of the respondents are performing their leadership responsibilities like for example, interacting with employees, and suppliers to improve their business activities needed in the business well.
- Respondents performed low in criterion 3 (Customer and Market focus) which indicates that most farmers used in this study are not interacting effectively with customers to know about their needs and how they could contribute in improving the performance of their farms.
- Equal performance for Criterion 2 (Business Planning), Criterion 9 (People satisfaction), Criterion 10 (Supplier performance) and Criterion

11 (Business Results) was depicted, which means that the majority of the respondents are gradually progressing towards performing activities in these criterions.

- Analysis indicates that performance of farmers on criterion 3 (Customer and market focus = 25%) is not compatible with performance on criterion 8 (Customer satisfaction =38%) and the same goes with criterion 4 (People Management = 27%) and criterion 9 (People satisfaction =33%).
- It was disturbing that the majority (37) of the respondents did not implement the recommended action plans and those that attempted did so without proper guidelines and adequate support.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSION

As it can be seen from the above, this research has addressed all four sub-problems identified. Therefore, it can be concluded that the main statement of the problem: *There are insufficient tools to measure and improve farm management performances in the diverse agricultural and cultural society of South Africa* has been addressed. Specifically, this has been done by identifying, outlining and discussing the following, all based on the study and findings of the four sub-problems:

- Annual agricultural competitions are held that are formally adjudicated using the models for measuring management performance.
- The potential application possibilities of the models within agriculture.
- Criteria that financial institutions or banks use to evaluate farmers.
- Summarised management performance measurement results that were obtained by means of measurement by the adapted SAEM for performance measurements done on the smallholder farmers in the Free State province.
- Inability of the SAEM to improve management performance of smallholder farmers.

The research also indicates that there is need to deploy performance measurement models in agri businesses in South Africa and that as is the case with all the models, the continuous development of agricultural models should be based on sound development methodologies. To assist and facilitate the process of deploying performance models in agricultural businesses, guidelines for the deployment of the management performance model were suggested. The biggest contribution of this model is likely to be the quantification of performance parameters by integrating the differences in the farming practices, constraints and attitudes of farmers. This model also

holds tremendous potential as a teaching aid to allow farmers to "*What is right"* to make success of the farming activities, but the approach should be based on *what* and *why* of current performance, irrespective of whether a farmer seeks to improve performance or just wants to itself.

The involvement of smallholder farmers in the mainstream economy, particularly the agricultural sector is of national significance and most of the novice farmers, who have been allocated land through the Land Reform Programme in South Africa, are communal farmers who over the years practised farming as a way of living rather than a business. Regardless of sector, size, maturity, to be successful, organisations need to establish an appropriate management systems. This model is a practical tool to help smallholder farmers does this by measuring where they are on the path to Excellence, helping them understand the gaps, and then stimulating.

This research study has incorporated views from different stakeholders within the agricultural fraternity, and by following this approach it became apparent that stakeholders within agriculture operate harmoniously to achieve their ultimate objectives i.e. production and distribution of wealth.

In pursuit of an ideal to accurately measure management performance of farmers, financial institutions or banks were involved in the process. Their involvement in this research depicted a true reflection of how farmers are viewed and it further assisted in providing useful information used extensively to determine the applicability of the excellence model to measure and improve management performance of smallholder farmers. It was seen during this research study, that though some factors are more important than others, there are common factors of great importance for credit evaluation. Farmers in general are required to maintain good financial performance, should have sufficient security or collateral, their production volumes should be constant and their repayment ability should be high.

By obtaining and analysing the results from the implementation of the adapted South African Excellence model to measure smallholder farmers'

management performance, the strengths and areas of improvement of these were easily identified. Given all the above, the conclusion can be drawn that the adapted South African Excellence Model gives relevant results that reflects the management position of farm businesses but was difficult to prove that management performance could be improved through the implementation of SAEM. The model however, still needs to be adapted further to address the shortcomings identified through the process of this research.

In the process of this research a comprehensive agriculturally orientated management performance measurement model was unleashed, to overcome challenges in management performance measurement, more especially in agriculture. The adapted South African Excellence Model takes into account some important facets of farming and incorporates perspectives from other business sectors both domestically and internationally. The adapted excellence model is an ideal tool for measuring performance of the secondary and the primary agricultural economies, given the fact that management performance is measured taking vast majority of factors into consideration and this is in contrast with the traditional management performance measurement models, using either pricing or production measures, neglecting important factors like for example people, resource and information management and the society.

A survey of the adapted excellence model to measure and improve the management performance of smallholder farmers has the top benefits as:

- Development of clear, concise action plans
- Clear and more focused leadership
- Better and more focused policy and strategy
- Process improvement enabling achievement of an organization’s objectives
- Improved prioritization of resources
- Greater motivation and satisfaction of an organization’s personnel

The evaluation results of an average of 33 percent are the management performance of the smallholder farmers used in this research study. The results show variations between the different categories of the excellence model. This illustrates that good leadership and bad customer relations are prevalent amongst the smallholder farmers in the Free State province.

The average total score of 33 percent should be seen in the context of the scoring criteria in the SAEF model, where a score of over fifty percent is rarely realised, even by large private sector companies. Williams (2008) indicates that 80 percent of SAEF award winners score between nil and 60 percent.

5.2 RECOMMENDATIONS

Arising from the findings and discussions in the dissertation, the following should be taken into account:

- Performance measurement models have several potential applications in agricultural organisations in South Africa.
- The application of the performance measurement models in agriculture is very limited.
- The models used currently in agriculture do not give guidelines on how to improve management performance.
- There was a need to identify and deploy a management performance measurement model to improve the applicability of the existing models within the agricultural sector.

It is therefore recommended that all the stakeholders in agriculture in South Africa should:

- Take advantage of the management performance measurement models and start deploying them to facilitate the provision of access to essential services to farmers.

- Adopt the use of formal development methodologies in the development of performance measures. Use of formal methodologies would ensure that agricultural research organisations avoid the various problems associated with the use of ad hoc approaches in the performance measurement models development. This will also ensure that the models that are developed are sustainable and fit into the organisations' overall performance.

5.3 AREAS REQUIRING FURTHER RESEARCH

During the course of the study, the researcher observed that the following areas require further research:

- The researcher recognised the important role performance measurement researchers could play in the development, promotion and provision of access to research models in many agricultural organisations or farmers. However, there is need to investigate whether researchers in South Africa are playing any role whatsoever in the development and deployment of the management performance measurement models in their organisations, and whether they have the right mix of skills that would enable them to participate fully in the development and deployment of the performance models in their organisations.
- The research showed that performance measurement models are rarely used in the development of smallholder farmers in South Africa. There is a need to investigate whether this is also the trend in the commercial agricultural sector.
- The research showed that the adapted excellence model gives results that show the management performance of farmers. It is necessary to investigate whether the model can improve management performance.

6. REFERENCES:

Abernethy, M.A. and Brownell, P. 2000. The consequences of customization on management accounting system design: an explanatory study. *Accounting, Organisations and society.* Vol. 25, pages 221-241.

Boehlje, M.D. and Eidman, V.R. 1984. Farm management. New York: John Wiley & Sons. New York, NY.

Bouwens, J. and Abernethy, M. 2000. The consequence of customization on management accounting system design. *Accounting, Organisations and Society*. Vol. 25, pages 221-241.

Chenhall, R.H. 2003. Management control systems design within its organisational context: Findings form contingency-based research and directions for the future. *Accounting, Organisations and Society.* Vol. 28, Issues 2-3, February- April 2003, Pages 127-168.

Chuan, T.K. & Soon, L.C. 2000. A detailed trend analysis of national quality awards world-wide. *Total Quality Management*. Vol. 11, issue 8, Pages 1065-1080.

Coetzee G. 2003. Agricultural finance in South Africa, in: Nieuwoudt L & Groenewald J (Eds.). The challenge of change: agriculture, land and the South African economy. Pietermaritzburg: University of Natal Press.

Cronje, J., Du Toit, G.S., Motlatla, M.D.C. and Marais, K. 2005. Introduction to Business Management, 6th Edition. Cape Town: Oxford University Press.

Delgado, C.L., 1999. Sources of Growth in Smallholder Agriculture in Sub-Saharan Africa: The Role of Vertical Integration of Smallholders with Processors and Marketers of high value-added items. *Agrekon.* Vol. 38. issue 1, pages 165-189.

Department of Agriculture, Forestry and Fisheries. 2009. Report on the Centre of Excellence. Available from: Directorate: Business and Entrepreneurial Development in Pretoria.

Department of Agriculture. 2001. Strategic Plan for South African Agriculture. Pretoria: Department of Agriculture.

Dessler, G. 2005. Management of Human Resources, Second Canadian Edition.

Dixon, J., Abur, A. & Watterbach, 2005. Framework for analysing impacts of globalisation on smallholders. www.fao.org/documents/. [Accessed 04 December 2009].

Daum, J.H. 2004. “Intangible Assets and Value Creation”, John Wiley, Chichester. Vol. 9, issue 9, pages 16-19.

Edgeman, R.L., Bigio, D.I. & Ferleman, T.E. 2005. Six Sigma and Business Excellence: Strategic and Tactical Examination of IT Service Level Management at the Office of the Chief Technology Officer of Washington, DC. *Quality & Reliability Engineering International.* 21(1), [Online] Available from: http://www.webpages.uidaho.edu/>. [Accessed: 25 February 2010].

Ellis, F., 1999. Peasant Economics: Farm Households and Agrarian Development. Cambridge University Press, Cambridge.

Epstein, M.J., Kumar P. and Westbrook, R. A. 2000. The drivers of customers and corporate profitability: modelling, measuring, and managing the causal relationships. Advances in Management. *Accounting, Organisations and Society.* Vol. 9, issue 1, pages 43-72.

European Foundation of Quality Management. 1999. Eight Essentials of Excellence – the fundamental concepts and their benefits. Brussels: EFQM.

Feynes, T. & Meyer, N. 2003. Structure and production in South African agriculture, in: Nieuwoudt L & Groenewald J (Eds.). The challenge of change: agriculture, land and the South African economy. Pietermaritzburg: University of Natal Press.

Fraser, G., Monde, N. & Van Averbeke, W. 2003. Food security in South Africa: a case study of rural livelihoods in the Eastern Cape, in: Nieuwoudt L & Groenewald J (eds.). The challenge of change: agriculture, land and the South African economy. Pietermaritzburg: University of Natal Press.

Groenewald, J. & Nieuwoudt, L. 2003. Demands on and challenges for South African agriculture, in: Nieuwoudt L & Groenewald J (eds.). The challenge of change: agriculture, land and the South African economy. Pietermaritzburg: University of Natal Press.

Hendriks, S. 2003. The potential for nutritional benefits from increased agricultural production in rural KwaZulu-Natal. South African Journal of Agricultural Extension. Vol. 32: pages 28-43.

Ho, S.K.M. 1999, From TQM to business Excellence. *Production Planning & Control*. Vol. 10, issue 1, pages 87-96.

Innes, J., Mitchell, F. and Yoshikawa, T. 1994. *Activity Costing For Engineers*. John-Wiley and Sons Ltd, Gloucester, UK.

Ittner, C.D. and Larcker, D.F. 2001 Assessing empirical research in managerial accounting: A value-based management perspective. *Journal of Accounting Economics*. Vol. 32, issues 1-3, pages 349-410.

Kanji, G. and Moura e Sa, P. 2002. Kanji's business scoreboard. *Total Quality Management.* Vol. 13, issue 1, pages 13-27.

Kanton Basel-Stadt (2003). “New Public Management im Kanton Basel-Stadt“, Basel (Brochure of the Kantonalverwaltung Basel-Stadt).

Kaplan, R.S. and Norton, D.P. 1996. The balanced score-board. Harvard Business School Press: Boston, MA.

Kaplan, R.S. and Norton, D.P. 2001. The Strategy-Focused Organisation. Harvard Business School Press: Boston, MA.

Kay, R.D. 1986. Farm Management – Planning, Control and Implementation. 2nd Edition. Agriculture Series, Singapore: McGraw-Hill International Editions.

Keegan, P. and Eiler, R.G. 1994. Let’s reengineer cost accounting. *Management Accounting.* Vol. 30, issue 1, pages 26–31.

Kennedy, A. 1996. ABC basics. *Management Accounting* June

Kirsten J, Townsend R & Gibson C. 1998. Determination of agricultural production to household nutritional status in KwaZulu-Natal, South Africa. Development Southern Africa 15.

Lee, P.. 2002. Sustaining Business Excellence through a framework of best practices in TQM. *The TQM Magazine.* Vol. 14, issue 3, pages 142-149.

Lev. B. (2001). Intangibles: “Management, Measurement, and Reporting”, Brookings Institution Press, Washington D.C.

Lyne, S. and Friedman, A. 1996. Activity-based techniques and the new management accountant. *Management Accounting*. vol. 22, issue 6, pages 554-571.

Mann, R.S. and Saunders, M. 2005. Self-assessment in a Multi-Organisational Network. *International Journal of Quality and Reliability Management.*

Mann, R. and Grigg, N. 2006. A study of National Strategies for Organisational Excellence. [Online] Available from: <http://www.coer.org.nz. [Accessed: 12 February 2010].

Maritz, J.L. 2003. Business Excellence and Manufacturing Strategy: an exploratory study of the manufacturing industry in the Cape Metropolitan Area (CMA). Bellville: University of Stellenbosch.

Miller, A.J. 1992. Designing and implementing a new cost management system. *Journal of cost management.* Vol. 5, issue 4, pages 41-53.

Miller, J.A. 1996. Activity-Based Management in Daily Operation. John Wiley & Sons Ltd, Chichester, UK.

National Institute of Standards and Technology. 2005. [Online] Available from: <http://www.NIST.co.za>. [Accessed: March 2010].

Nell, T.W., and Napier, R.J (2005). Strategic approach to farming success. *Securing competitive Advantage in a turbulent global agricultural environment.* Bleomfontein: Free State University.

Otley, D.T. 1999. Performance management: a framework for management control systems research. *Manage Accounting Research.* Vol. 10, pages 363-382.

Pearce II, J.A., and Robinson, R.B. 2003. Strategic Management: *Formulation, Implementation and Control. Eighth edition*. New York, McGraw-hill Higher Education.

Porter, L.J. and Tanner, S.J. 2004. *Assessing Business Excellence*. Oxford: Elsevier Butterworth-Heinemann.

Rappaport, A. 1999. New thinking on how to link executive pay to performance. *Harvard Bus. Rev*. Vol. 77, issue 7, pages 99 -101.

Seddon, J. 2006. *The Business Excellence Model- will it deliver.* [Online] Available from: www.lean-service.com. [Accessed: 18 March 2010].

Shergold, K. & Reed, D.M. 2006. Striving for Excellence: how self-assessment using the Business Excellence Model can result in step improvements in all areas of business activities. *The TQM Magazine*, Vol.8, issue 6, pages 48-52.

South African Excellence Foundation. 2001. [Online] Available from: <http://www.saef.co.za>. [Accessed: March 2010].

South African Quality Institute. 2003. *The Link between Quality and Global Competitiveness*.

South African Standard, Quality Assurance, Accreditation and Metrology. 2001. Reasons for SAEF failures.

Statistics South Africa. (2009). Census of commercial agriculture 2007 (Preliminary – February 2009). Pretoria: Statistics South Africa.

Strydom, C. 2002. *Business Excellence: An Integrated Approach*. Bellville: University of Stellenbosch.

Tan, Kay C. 2002. A comparative study of 16 national quality awards. *The TQM Magazine.* Vol. 14, issue 3, pages 24-54.

Thiam, A., Bravo-Ureta, B.E. and Rivas, T.E. 2001. Technical efficiency in developing country agriculture: a meta-analysis, Agricultural Economics.

Tomkins, C. 2001. Interdependencies, trust and information in relationships, alliances and networks. *Accounting, Organisations and Society.* Vol.26, issue 2, pages 161-191.

Turney, B.B.P. and Stratton, A.J. 1992. Using ABC to support continuous improvement. *Management Accounting* September University of Stellenbosch.

Van Averbeke W & Khosa TB. 2007. The contribution of smallholder agriculture to the nutrition of rural households in a semi-arid environment in South Africa. *Water SA.* Vol. 33, issue 3, pages 413 – 418.

Van den Heever, E. 2007. Inaugural CEO, South African Excellence Foundation, Pretoria: Telephone interview supported by e-mail, 18 April 2010.

Van der Westhuizen, C. 1997. Veranderinge in bestuurspraktyke van kommersiële boere in Suid-Afrika en die implikasie vir boerderybestuursopleiding by technikons. Unpublished Ph.D. thesis, University of the Free State: Bloemfontein

Van der Westhuizen, C. and Viljoen, M.F. 1999. Relevance of the improved integrated farm planning and farm management performance relationships to address the challenges of the new millennium. *Agrekon*, Vol. 38, issue 4, pages 670– 679.

Van der Westhuizen, C. 2010. Farm management model. Email received: Wed 2010/04/14 12:46 PM.

Van Zyl, J. and Kirsten, J. 1999. Finance and the Farmer: *A financial management guide for farmers*.

Vink, N. & Kirsten, J. (2003). Agriculture in the national economy, in: Nieuwoudt L & Groenewald J (eds.). The challenge of change: agriculture, land and the South African economy. Pietermaritzburg: University of Natal Press.

Walters, T.H, Jr., 2002. DISAM Journal article, Volume 24, issue 20, pages 57-64.

Williams, J.C. 2008. A retrospective view of the SAEM. Stellenbosch: University of Stellenbosch.

Wikipedia. 2006. *Malcolm Baldridge National Quality Award.* [Online] Available from: www.wikipedia.org. [Accessed: 14 March 2010].

APPENDIX A

RESULTS OBTAINED THROUGH THE IMPLEMENTATION OF THE ADAPTED SOUTH AFRICAN EXCELLENCE MODEL

SUMMARY 1 (PERCENTAGES PER CRITERION)												
Respondent(s)	Leadership (10%)	Business Planning (7%)	Customer and Market Focus (6%)	People Management (9%)	Resources Management (6%)	Process Management (12%)	Impact on society (6%)	Customer Satisfaction (17%)	People Satisfaction (9%)	Supplier Performance (3%)	Business Results (15%)	Overall Performance (%) per respondent
	Actual Performance (%) per criterion											
1	51.9%	36.1%	20.0%	23.3%	23.8%	24.2%	16.7%	16.7%	22.2%	33.3%	16.7%	21.2%
2	33.3%	27.8%	26.7%	33.3%	28.6%	21.2%	75.0%	33.3%	38.9%	25.0%	8.3%	22.5%
3	33.3%	19.4%	30.0%	36.7%	23.8%	18.2%	8.3%	16.7%	33.3%	8.3%	16.7%	22.8%
4	48.1%	33.3%	36.7%	43.3%	23.8%	24.2%	41.7%	8.3%	50.0%	25.0%	25.0%	24.7%
5	33.3%	25.0%	23.3%	26.7%	23.8%	21.2%	25.0%	25.0%	38.9%	25.0%	58.3%	24.9%
6	33.3%	44.4%	16.7%	46.7%	28.6%	39.4%	41.7%	50.0%	33.3%	50.0%	25.0%	25.0%
7	44.4%	30.6%	16.7%	23.3%	33.3%	36.4%	16.7%	8.3%	11.1%	75.0%	50.0%	25.5%
8	44.4%	33.3%	10.0%	33.3%	23.8%	27.3%	50.0%	16.7%	38.9%	33.3%	50.0%	25.8%
9	48.1%	25.0%	30.0%	26.7%	19.0%	33.3%	16.7%	16.7%	55.6%	33.3%	25.0%	26.1%
10	37.0%	27.8%	30.0%	26.7%	19.0%	18.2%	16.7%	16.7%	44.4%	33.3%	25.0%	26.1%
11	63.0%	30.6%	33.3%	30.0%	14.3%	12.1%	33.3%	33.3%	22.2%	8.3%	16.7%	27.9%
12	33.3%	30.6%	26.7%	46.7%	28.6%	21.2%	25.0%	50.0%	16.7%	33.3%	50.0%	28.0%
13	29.6%	30.6%	30.0%	23.3%	23.8%	24.2%	75.0%	83.3%	11.1%	50.0%	8.3%	28.1%
14	33.3%	25.0%	36.7%	23.3%	19.0%	27.3%	50.0%	33.3%	27.8%	16.7%	16.7%	28.2%
15	37.0%	27.8%	46.7%	43.3%	19.0%	60.6%	50.0%	33.3%	55.6%	8.3%	8.3%	28.2%
16	33.3%	22.2%	20.0%	40.0%	4.8%	18.2%	8.3%	33.3%	33.3%	33.3%	25.0%	28.4%
17	29.6%	27.8%	30.0%	26.7%	23.8%	21.2%	8.3%	16.7%	27.8%	33.3%	33.3%	29.2%
18	40.7%	52.8%	16.7%	33.3%	23.8%	15.2%	33.3%	0.0%	16.7%	25.0%	66.7%	29.3%
19	29.6%	38.9%	26.7%	30.0%	14.3%	21.2%	33.3%	58.3%	11.1%	58.3%	25.0%	29.4%
20	22.2%	55.6%	23.3%	20.0%	28.6%	30.3%	58.3%	66.7%	22.2%	33.3%	33.3%	29.5%
21	48.1%	25.0%	26.7%	23.3%	28.6%	30.3%	25.0%	75.0%	22.2%	8.3%	50.0%	29.8%
22	40.7%	22.2%	30.0%	33.3%	19.0%	27.3%	66.7%	50.0%	33.3%	25.0%	41.7%	30.2%
23	51.9%	25.0%	26.7%	26.7%	28.6%	21.2%	25.0%	25.0%	66.7%	41.7%	25.0%	30.5%
24	37.0%	22.2%	33.3%	23.3%	23.8%	18.2%	41.7%	16.7%	27.8%	25.0%	8.3%	31.0%
25	44.4%	16.7%	26.7%	26.7%	23.8%	18.2%	75.0%	8.3%	16.7%	8.3%	50.0%	31.6%
26	37.0%	22.2%	23.3%	40.0%	28.6%	18.2%	58.3%	33.3%	27.8%	33.3%	8.3%	31.7%
27	51.9%	25.0%	16.7%	33.3%	23.8%	24.2%	33.3%	50.0%	38.9%	41.7%	25.0%	31.8%
28	51.9%	22.2%	40.0%	30.0%	14.3%	18.2%	33.3%	16.7%	11.1%	58.3%	16.7%	31.8%
29	37.0%	27.8%	30.0%	20.0%	23.8%	15.2%	8.3%	41.7%	27.8%	33.3%	16.7%	31.9%
30	51.9%	19.4%	33.3%	23.3%	28.6%	24.2%	50.0%	58.3%	27.8%	33.3%	50.0%	32.4%
31	48.1%	22.2%	16.7%	30.0%	14.3%	15.2%	50.0%	75.0%	22.2%	8.3%	50.0%	32.9%
32	55.6%	33.3%	36.7%	20.0%	33.3%	30.3%	66.7%	8.3%	50.0%	41.7%	50.0%	33.2%
33	59.3%	19.4%	23.3%	26.7%	23.8%	30.3%	58.3%	50.0%	33.3%	50.0%	25.0%	33.9%
34	44.4%	19.4%	13.3%	36.7%	19.0%	45.5%	25.0%	8.3%	22.2%	33.3%	66.7%	34.0%
35	40.7%	19.4%	23.3%	26.7%	38.1%	54.5%	50.0%	75.0%	27.8%	8.3%	33.3%	34.1%
36	33.3%	25.0%	16.7%	43.3%	28.6%	33.3%	91.7%	50.0%	27.8%	41.7%	75.0%	34.3%

37	44.4%	22.2%	16.7%	23.3%	19.0%	21.2%	33.3%	50.0%	38.9%	33.3%	41.7%	34.5%
38	55.6%	44.4%	20.0%	20.0%	33.3%	21.2%	8.3%	50.0%	33.3%	33.3%	50.0%	34.5%
39	59.3%	41.7%	20.0%	26.7%	28.6%	24.2%	58.3%	58.3%	61.1%	25.0%	41.7%	34.6%
40	51.9%	33.3%	33.3%	36.7%	14.3%	30.3%	33.3%	8.3%	66.7%	8.3%	50.0%	35.4%
41	48.1%	47.2%	23.3%	26.7%	33.3%	18.2%	16.7%	16.7%	38.9%	25.0%	50.0%	35.5%
42	55.6%	47.2%	30.0%	20.0%	33.3%	24.2%	25.0%	75.0%	61.1%	50.0%	41.7%	35.7%
43	48.1%	30.6%	20.0%	46.7%	14.3%	27.3%	50.0%	50.0%	16.7%	58.3%	50.0%	35.8%
44	63.0%	22.2%	16.7%	36.7%	33.3%	21.2%	8.3%	75.0%	44.4%	75.0%	25.0%	35.9%
45	44.4%	22.2%	16.7%	23.3%	28.6%	24.2%	50.0%	50.0%	22.2%	33.3%	50.0%	36.2%
46	63.0%	27.8%	23.3%	16.7%	47.6%	18.2%	41.7%	58.3%	44.4%	66.7%	33.3%	36.4%
47	44.4%	25.0%	23.3%	23.3%	42.9%	27.3%	50.0%	50.0%	44.4%	33.3%	16.7%	36.5%
48	63.0%	30.6%	26.7%	20.0%	38.1%	27.3%	58.3%	50.0%	27.8%	33.3%	16.7%	36.5%
49	55.6%	47.2%	26.7%	16.7%	47.6%	45.5%	50.0%	50.0%	27.8%	33.3%	8.3%	36.6%
50	59.3%	38.9%	20.0%	20.0%	52.4%	27.3%	50.0%	50.0%	33.3%	50.0%	16.7%	36.7%
51	55.6%	44.4%	30.0%	26.7%	38.1%	33.3%	8.3%	50.0%	33.3%	8.3%	16.7%	36.7%
52	40.7%	38.9%	16.7%	30.0%	33.3%	24.2%	66.7%	25.0%	27.8%	25.0%	8.3%	37.3%
53	25.9%	47.2%	20.0%	23.3%	38.1%	27.3%	50.0%	41.7%	50.0%	33.3%	25.0%	37.3%
54	48.1%	52.8%	23.3%	23.3%	33.3%	39.4%	41.7%	33.3%	55.6%	33.3%	25.0%	37.4%
55	33.3%	41.7%	16.7%	33.3%	23.8%	21.2%	25.0%	25.0%	33.3%	0.0%	16.7%	37.5%
56	48.1%	27.8%	26.7%	26.7%	38.1%	30.3%	33.3%	25.0%	22.2%	8.3%	33.3%	37.9%
57	48.1%	25.0%	26.7%	23.3%	52.4%	54.5%	33.3%	33.3%	22.2%	33.3%	50.0%	38.1%
58	55.6%	36.1%	30.0%	23.3%	19.0%	24.2%	8.3%	25.0%	27.8%	33.3%	50.0%	38.2%
59	51.9%	47.2%	30.0%	13.3%	23.8%	36.4%	41.7%	41.7%	27.8%	33.3%	50.0%	38.7%
60	51.9%	38.9%	20.0%	23.3%	19.0%	24.2%	33.3%	41.7%	27.8%	8.3%	50.0%	39.2%
61	51.9%	47.2%	23.3%	33.3%	33.3%	21.2%	16.7%	33.3%	33.3%	33.3%	8.3%	39.3%
62	40.7%	47.2%	23.3%	20.0%	33.3%	38.2%	25.0%	0.0%	16.7%	8.3%	16.7%	39.6%
63	40.7%	58.3%	26.7%	16.7%	52.4%	24.2%	66.7%	66.7%	27.8%	33.3%	8.3%	39.6%
64	59.3%	44.4%	23.3%	33.3%	42.9%	18.2%	16.7%	41.7%	16.7%	25.0%	16.7%	39.9%
65	51.9%	30.6%	23.3%	30.0%	42.9%	45.5%	33.3%	41.7%	22.2%	33.3%	33.3%	41.6%
66	48.1%	27.8%	23.3%	16.7%	28.6%	36.4%	33.3%	33.3%	55.6%	33.3%	25.0%	42.1%
67	55.6%	33.3%	30.0%	20.0%	23.8%	36.4%	25.0%	8.3%	22.2%	33.3%	33.3%	43.0%
68	48.1%	44.4%	23.3%	33.3%	33.3%	39.4%	25.0%	66.7%	55.6%	50.0%	25.0%	44.7%
69	44.4%	30.6%	26.7%	10.0%	23.8%	48.5%	66.7%	50.0%	55.6%	58.3%	25.0%	44.9%
Average % / Criterion	45.6%	32.7%	25.0%	27.8%	28.2%	27.8%	38.0%	38.2%	33.2%	32.1%	31.6%	33.3%

SUMMARY 2 (% CONTRIBUTION TO TOTAL)												
Respondent(s)	(1) Leadership (Weight = 10%)	(2) Business Planning (Weight = 7%)	(3) Customer and Market Focus (Weight = 6%)	(4) People Management (Weight = 9%)	(5) Resources Management (Weight = 6%)	(6) Process Management (Weight = 12%)	(7) Impact on society (Weight = 6%)	(8) Customer Satisfaction (Weight = 17%)	(9) People Satisfaction (Weight = 9%)	(10) Supplier Performance (Weight = 3%)	(11) Business Results (Weight = 15%)	Overall Performance (%) per respondent
	Actual Performance											
1	5%	3%	1%	2%	1%	3%	1%	3%	2%	1%	3%	25%
2	3%	2%	2%	3%	2%	3%	5%	6%	4%	1%	1%	30%
3	3%	1%	2%	3%	1%	2%	1%	3%	3%	0%	3%	22%
4	5%	2%	2%	4%	1%	3%	3%	1%	5%	1%	4%	31%
5	3%	2%	1%	2%	1%	3%	2%	4%	4%	1%	9%	32%
6	3%	3%	1%	4%	2%	5%	3%	9%	3%	2%	4%	37%
7	4%	2%	1%	2%	2%	4%	1%	1%	1%	2%	8%	29%
8	4%	2%	1%	3%	1%	3%	3%	3%	4%	1%	8%	33%
9	5%	2%	2%	2%	1%	4%	1%	3%	5%	1%	4%	29%
10	4%	2%	2%	2%	1%	2%	1%	3%	4%	1%	4%	26%
11	6%	2%	2%	3%	1%	1%	2%	6%	2%	0%	3%	28%
12	3%	2%	2%	4%	2%	3%	2%	9%	2%	1%	8%	36%
13	3%	2%	2%	2%	1%	3%	5%	14%	1%	2%	1%	36%
14	3%	2%	2%	2%	1%	3%	3%	6%	3%	1%	3%	28%
15	4%	2%	3%	4%	1%	7%	3%	6%	5%	0%	1%	36%
16	3%	2%	1%	4%	0%	2%	1%	6%	3%	1%	4%	26%
17	3%	2%	2%	2%	1%	3%	1%	3%	3%	1%	5%	25%
18	4%	4%	1%	3%	1%	2%	2%	0%	2%	1%	10%	29%
19	3%	3%	2%	3%	1%	3%	2%	10%	1%	2%	4%	32%
20	2%	4%	1%	2%	2%	4%	4%	11%	2%	1%	5%	37%
21	5%	2%	2%	2%	2%	4%	2%	13%	2%	0%	8%	40%
22	4%	2%	2%	3%	1%	3%	4%	9%	3%	1%	6%	37%
23	5%	2%	2%	2%	2%	3%	2%	4%	6%	1%	4%	32%
24	4%	2%	2%	2%	1%	2%	3%	3%	3%	1%	1%	23%
25	4%	1%	2%	2%	1%	2%	5%	1%	2%	0%	8%	28%
26	4%	2%	1%	4%	2%	2%	4%	6%	3%	1%	1%	28%
27	5%	2%	1%	3%	1%	3%	2%	9%	4%	1%	4%	34%
28	5%	2%	2%	3%	1%	2%	2%	3%	1%	2%	3%	25%
29	4%	2%	2%	2%	1%	2%	1%	7%	3%	1%	3%	26%
30	5%	1%	2%	2%	2%	3%	3%	10%	3%	1%	8%	39%
31	5%	2%	1%	3%	1%	2%	3%	13%	2%	0%	8%	38%
32	6%	2%	2%	2%	2%	4%	4%	1%	5%	1%	8%	36%
33	6%	1%	1%	2%	1%	4%	4%	9%	3%	2%	4%	36%
34	4%	1%	1%	3%	1%	5%	2%	1%	2%	1%	10%	32%

35	4%	1%	1%	2%	2%	7%	3%	13%	3%	0%	5%	42%
36	3%	2%	1%	4%	2%	4%	6%	9%	3%	1%	11%	45%
37	4%	2%	1%	2%	1%	3%	2%	9%	4%	1%	6%	34%
38	6%	3%	1%	2%	2%	3%	1%	9%	3%	1%	8%	37%
39	6%	3%	1%	2%	2%	3%	4%	10%	6%	1%	6%	43%
40	5%	2%	2%	3%	1%	4%	2%	1%	6%	0%	8%	34%
41	5%	3%	1%	2%	2%	2%	1%	3%	4%	1%	8%	32%
42	6%	3%	2%	2%	2%	3%	2%	13%	6%	2%	6%	45%
43	5%	2%	1%	4%	1%	3%	3%	9%	2%	2%	8%	39%
44	6%	2%	1%	3%	2%	3%	1%	13%	4%	2%	4%	40%
45	4%	2%	1%	2%	2%	3%	3%	9%	2%	1%	8%	36%
46	6%	2%	1%	2%	3%	2%	3%	10%	4%	2%	5%	40%
47	4%	2%	1%	2%	3%	3%	3%	9%	4%	1%	3%	35%
48	6%	2%	2%	2%	2%	3%	4%	9%	3%	1%	3%	35%
49	6%	3%	2%	2%	3%	5%	3%	9%	3%	1%	1%	37%
50	6%	3%	1%	2%	3%	3%	3%	9%	3%	2%	3%	37%
51	6%	3%	2%	2%	2%	4%	1%	9%	3%	0%	3%	34%
52	4%	3%	1%	3%	2%	3%	4%	4%	3%	1%	1%	28%
53	3%	3%	1%	2%	2%	3%	3%	7%	5%	1%	4%	34%
54	5%	4%	1%	2%	2%	5%	3%	6%	5%	1%	4%	37%
55	3%	3%	1%	3%	1%	3%	2%	4%	3%	0%	3%	25%
56	5%	2%	2%	2%	2%	4%	2%	4%	2%	0%	5%	30%
57	5%	2%	2%	2%	3%	7%	2%	6%	2%	1%	8%	38%
58	6%	3%	2%	2%	1%	3%	1%	4%	3%	1%	8%	32%
59	5%	3%	2%	1%	1%	4%	3%	7%	3%	1%	8%	38%
60	5%	3%	1%	2%	1%	3%	2%	7%	3%	0%	8%	35%
61	5%	3%	1%	3%	2%	3%	1%	6%	3%	1%	1%	29%
62	4%	3%	1%	2%	2%	3%	2%	0%	2%	0%	3%	21%
63	4%	4%	2%	2%	3%	3%	4%	11%	3%	1%	1%	37%
64	6%	3%	1%	3%	3%	2%	1%	7%	2%	1%	3%	31%
65	5%	2%	1%	3%	3%	5%	2%	7%	2%	1%	5%	37%
66	5%	2%	1%	2%	2%	4%	2%	6%	5%	1%	4%	33%
67	6%	2%	2%	2%	1%	4%	2%	1%	2%	1%	5%	28%
68	5%	3%	1%	3%	2%	5%	2%	11%	5%	2%	4%	42%
69	4%	2%	2%	1%	1%	6%	4%	9%	5%	2%	4%	39%
Percentage / Criterion	5%	2%	2%	3%	2%	3%	2%	6%	3%	1%	5%	**33%**

SUMMARY 3 (WEIGHTED VALUES)												
Respondent(s)	Leadership *(100 points)*	Business Planning *(70 points)*	Customer and Market Focus *(60 points)*	People Management *(90 points)*	Resources Management *(60 points)*	Process Management *(120 points)*	Impact on society *(60 points)*	Customer Satisfaction *(170 points)*	People Satisfaction *(90 points)*	Supplier Performance *(30 Points)*	Business Results *(150 Points)*	Performance (points) per respondent out of 1000 points
	Actual Performance											
1	51.9	25.3	12.0	21.0	14.3	29.1	10.0	28.3	20.0	10.0	25.0	246.8
2	33.3	19.4	16.0	30.0	17.1	25.5	45.0	56.7	35.0	7.5	12.5	298.0
3	33.3	13.6	18.0	33.0	14.3	21.8	5.0	28.3	30.0	2.5	25.0	224.9
4	48.1	23.3	22.0	39.0	14.3	29.1	25.0	14.2	45.0	7.5	37.5	305.0
5	33.3	17.5	14.0	24.0	14.3	25.5	15.0	42.5	35.0	7.5	87.5	316.1
6	33.3	31.1	10.0	42.0	17.1	47.3	25.0	85.0	30.0	15.0	37.5	373.4
7	44.4	21.4	10.0	21.0	20.0	43.6	10.0	14.2	10.0	22.5	75.0	292.1
8	44.4	23.3	6.0	30.0	14.3	32.7	30.0	28.3	35.0	10.0	75.0	329.1
9	48.1	17.5	18.0	24.0	11.4	40.0	10.0	28.3	50.0	10.0	37.5	294.9
10	37.0	19.4	18.0	24.0	11.4	21.8	10.0	28.3	40.0	10.0	37.5	257.6
11	63.0	21.4	20.0	27.0	8.6	14.5	20.0	56.7	20.0	2.5	25.0	278.6
12	33.3	21.4	16.0	42.0	17.1	25.5	15.0	85.0	15.0	10.0	75.0	355.3
13	29.6	21.4	18.0	21.0	14.3	29.1	45.0	141.7	10.0	15.0	12.5	357.6
14	33.3	17.5	22.0	21.0	11.4	32.7	30.0	56.7	25.0	5.0	25.0	279.7
15	37.0	19.4	28.0	39.0	11.4	72.7	30.0	56.7	50.0	2.5	12.5	359.3
16	33.3	15.6	12.0	36.0	2.9	21.8	5.0	56.7	30.0	10.0	37.5	260.7
17	29.6	19.4	18.0	24.0	14.3	25.5	5.0	28.3	25.0	10.0	50.0	249.1
18	40.7	36.9	10.0	30.0	14.3	18.2	20.0	0.0	15.0	7.5	100.0	292.7
19	29.6	27.2	16.0	27.0	8.6	25.5	20.0	99.2	10.0	17.5	37.5	318.0
20	22.2	38.9	14.0	18.0	17.1	36.4	35.0	113.3	20.0	10.0	50.0	375.0
21	48.1	17.5	16.0	21.0	17.1	36.4	15.0	127.5	20.0	2.5	75.0	396.2
22	40.7	15.6	18.0	30.0	11.4	32.7	40.0	85.0	30.0	7.5	62.5	373.5
23	51.9	17.5	16.0	24.0	17.1	25.5	15.0	42.5	60.0	12.5	37.5	319.4
24	37.0	15.6	20.0	21.0	14.3	21.8	25.0	28.3	25.0	7.5	12.5	228.0
25	44.4	11.7	16.0	24.0	14.3	21.8	45.0	14.2	15.0	2.5	75.0	283.9
26	37.0	15.6	14.0	36.0	17.1	21.8	35.0	56.7	25.0	10.0	12.5	280.7
27	51.9	17.5	10.0	30.0	14.3	29.1	20.0	85.0	35.0	12.5	37.5	342.7
28	51.9	15.6	24.0	27.0	8.6	21.8	20.0	28.3	10.0	17.5	25.0	249.6
29	37.0	19.4	18.0	18.0	14.3	18.2	5.0	70.8	25.0	10.0	25.0	260.8
30	51.9	13.6	20.0	21.0	17.1	29.1	30.0	99.2	25.0	10.0	75.0	391.9
31	48.1	15.6	10.0	27.0	8.6	18.2	30.0	127.5	20.0	2.5	75.0	382.5
32	55.6	23.3	22.0	18.0	20.0	36.4	40.0	14.2	45.0	12.5	75.0	361.9
33	59.3	13.6	14.0	24.0	14.3	36.4	35.0	85.0	30.0	15.0	37.5	364.0
34	44.4	13.6	8.0	33.0	11.4	54.5	15.0	14.2	20.0	10.0	100.0	324.2
35	40.7	13.6	14.0	24.0	22.9	65.5	30.0	127.5	25.0	2.5	50.0	415.7

36	33.3	17.5	10.0	39.0	17.1	40.0	55.0	85.0	25.0	12.5	112.5	447.0
37	44.4	15.6	10.0	21.0	11.4	25.5	20.0	85.0	35.0	10.0	62.5	340.4
38	55.6	31.1	12.0	18.0	20.0	25.5	5.0	85.0	30.0	10.0	75.0	367.1
39	59.3	29.2	12.0	24.0	17.1	29.1	35.0	99.2	55.0	7.5	62.5	429.8
40	51.9	23.3	20.0	33.0	8.6	36.4	20.0	14.2	60.0	2.5	75.0	344.8
41	48.1	33.1	14.0	24.0	20.0	21.8	10.0	28.3	35.0	7.5	75.0	316.9
42	55.6	33.1	18.0	18.0	20.0	29.1	15.0	127.5	55.0	15.0	62.5	448.7
43	48.1	21.4	12.0	42.0	8.6	32.7	30.0	85.0	15.0	17.5	75.0	387.3
44	63.0	15.6	10.0	33.0	20.0	25.5	5.0	127.5	40.0	22.5	37.5	399.5
45	44.4	15.6	10.0	21.0	17.1	29.1	30.0	85.0	20.0	10.0	75.0	357.2
46	63.0	19.4	14.0	15.0	28.6	21.8	25.0	99.2	40.0	20.0	50.0	396.0
47	44.4	17.5	14.0	21.0	25.7	32.7	30.0	85.0	40.0	10.0	25.0	345.4
48	63.0	21.4	16.0	18.0	22.9	32.7	35.0	85.0	25.0	10.0	25.0	353.9
49	55.6	33.1	16.0	15.0	28.6	54.5	30.0	85.0	25.0	10.0	12.5	365.2
50	59.3	27.2	12.0	18.0	31.4	32.7	30.0	85.0	30.0	15.0	25.0	365.6
51	55.6	31.1	18.0	24.0	22.9	40.0	5.0	85.0	30.0	2.5	25.0	339.0
52	40.7	27.2	10.0	27.0	20.0	29.1	40.0	42.5	25.0	7.5	12.5	281.6
53	25.9	33.1	12.0	21.0	22.9	32.7	30.0	70.8	45.0	10.0	37.5	340.9
54	48.1	36.9	14.0	21.0	20.0	47.3	25.0	56.7	50.0	10.0	37.5	366.5
55	33.3	29.2	10.0	30.0	14.3	25.5	15.0	42.5	30.0	0.0	25.0	254.7
56	48.1	19.4	16.0	24.0	22.9	36.4	20.0	42.5	20.0	2.5	50.0	301.8
57	48.1	17.5	16.0	21.0	31.4	65.5	20.0	56.7	20.0	10.0	75.0	381.2
58	55.6	25.3	18.0	21.0	11.4	29.1	5.0	42.5	25.0	10.0	75.0	317.9
59	51.9	33.1	18.0	12.0	14.3	43.6	25.0	70.8	25.0	10.0	75.0	378.7
60	51.9	27.2	12.0	21.0	11.4	29.1	20.0	70.8	25.0	2.5	75.0	345.9
61	51.9	33.1	14.0	30.0	20.0	25.5	10.0	56.7	30.0	10.0	12.5	293.5
62	40.7	33.1	14.0	18.0	20.0	29.1	15.0	0.0	15.0	2.5	25.0	212.4
63	40.7	40.8	16.0	15.0	31.4	29.1	40.0	113.3	25.0	10.0	12.5	373.9
64	59.3	31.1	14.0	30.0	25.7	21.8	10.0	70.8	15.0	7.5	25.0	310.2
65	51.9	21.4	14.0	27.0	25.7	54.5	20.0	70.8	20.0	10.0	50.0	365.3
66	48.1	19.4	14.0	15.0	17.1	43.6	20.0	56.7	50.0	10.0	37.5	331.5
67	55.6	23.3	18.0	18.0	14.3	43.6	15.0	14.2	20.0	10.0	50.0	282.0
68	48.1	31.1	14.0	30.0	20.0	47.3	15.0	113.3	50.0	15.0	37.5	421.4
69	44.4	21.4	16.0	9.0	14.3	58.2	40.0	85.0	50.0	17.5	37.5	393.3
Performance / Criterion	45.6	22.9	15.0	25.0	16.9	33.1	22.8	64.9	29.9	9.6	47.5	**333.3**

ANNEXURE B

QUESTIONNAIRE TO EVALUATE THE CRITERIA USED BY COMMERCIAL BANKS AND OTHER FINANCIAL INSTITUTIONS TO DETERMINE THE CREDITABILITY OF FARMERS REQUESTING FINANCIAL ASSISTANCE.

QUESTIONNAIRE TO EVALUATE THE CRITERIA USED BY COMMERCIAL BANKS AND OTHER FINANCIAL INSTITUTIONS TO DETERMINE THE CREDITABILITY OF FARMERS REQUESTING FINANCIAL ASSISTANCE.

1 Biographical information

1.1 Interviewer's name ……
1.2 Date of the interview ……
1.3 Name of the bank/ institution ……...
1.4 Bank Location ……
1.5 Do you provide loan to (mark applicable option with an X)
1.5.1 Commercial farmers only .....……
1.5.2 Emerging farmers only ……
1.5.3 Both …….
1.6 Do you consider land size important during credit evaluation……

2 Credit evaluation

2.1 Do you have a specific programme that you follow to evaluate farmers? **Yes / No**
2.1.1 If **"Yes"**, what are some of the important factors that you take into consideration during credit evaluation?
2.1.1.1……
2.1.1.2 ……
2.1.1.3 ……
2.1.1.4 ……
2.1.1.5 ……

2.2 Do you provide credit according to the following (Mark an applicable option with an X):
2.2.1 Region and characteristics of land in each region …….
2.2.2 Nature of the enterprise ……
2.2.3 Size of the farm business ……
2.2.4 Production techniques ……..

2.3 Do you assess the farmer's previous financial performance? **Yes / No**
2.3.1 If **"Yes",** do you evaluate the following (Mark an applicable option with an X)
2.3.1.1 An income statement of the previous year's farming activities ……
2.3.1.2 Balance sheets of the previous number of years ……
2.3.1.3 A ratio analysis which indicates the changes in certain critical financial ratios …
2.3.1.4 Others ……..

2.4 Do you evaluate the farmer's current financial position? **Yes / No**

2.4.1 If "Yes", do you evaluate the following: (Mark an applicable option with an X)

2.4.1.1 Current balance sheet …….

2.4.1.2 Changes in the most important ratios ……..

2.4.1.3 Other (please specify)……..

2.5 Do you evaluate the farmer's future financial requirements? **Yes / No**

2.5.1 If **'Yes',** do you evaluate the following (Mark an applicable option with an X)

2.5.1.1 Current budgets ……..

2.5.1.2 A debt repayment schedule …….

2.5.1.3 Budgets for non-farming income / expenditure ……..

2.5.1.4 Cash flow budget …….

2.5.1.5 The repayment ability of the farmers …….

2.6 Do you evaluate the security position of the farmer? **Yes / No**

2.6.1 If **"Yes",** do you evaluate the following (Mark an applicable option with an X)

2.6.1.1 Land valuation ……

2.6.1.2 Assets ……..

2.7 Do you evaluate the farmer's repayment ability? **Yes / No**

2.7.1 If **"Yes"**, do you take the following into consideration? (Mark applicable options with an X)

2.7.1.1 The income generating ability and disposable income ……

2.7.1.2 The fixed liabilities of the business ……

2.7.1.3 The interest rate ……..

2.7.1.4 The term for which the loan is granted …….

3 How do financial institutions/ banks view farmers in general

3.1 ……..

……..

……...

……...

……...