VALUE-BASED MANAGEMENT AT THE CUSTOMER- AND PRODUCT LEVEL

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WAARDE-GEBASEERDE BESTUUR OP KLIëNT- EN PRODUKVLAK

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Hierdie verhandeling word opgedra aan my Oupa, Pieter F.R. Scholtz (1917-2005) en aan "Spikkel" (geboorte DV April 2006).

Die Here het geneem en die Here het gegee.

Met die skryf van hierdie verhandeling het ek langs die sterfbed van my geliefde Oupa gestaan. Met elke graad en prestasie wat ek bereik het, was Oupa daar om in die vreugde te deel; die keer sal Oupa in ons harte die vreugde deel. Ek wil die Here prys vir die voorreg om Oupa se hand te kon vashou toe hy na die huis van ons Vader gegaan het.

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Abstract

The creation of shareholder wealth has become a key measurement of corporate success. Value-based management (VBM) is a powerful management framework with the aim to focus all managerial processes on shareholder wealth creation. It therefore encourages all staff levels within the organisation to focus on value creation. Various metrics have been developed to measure the value creation process within the organisation. Discounted cash flow to the present value at the weighted average cost of capital lies at the heart of these metrics.

The application of VBM principles at the lower levels within the organisation is critical to ensure that lower level staff applies value-creating principles in their daily jobs. Through the use of value mapping, underlying value drivers are linked to the overall strategy of value creation.

The application of VBM within the financial services industry is critical for survival within a continuous changing environment. For organisations to be value creators it is imperative to apply VBM principles at the customer- and product level for decision-making and rewarding. The usage of VBM tools, such as embedded value (EV) and customer lifetime value (CLV), provide an understanding of the impact that a product or customer has on the value of the organisation. These tools do not only provide information on the profitability of customers today, but also provides information on the potential value of a customer or product.

Despite the agreement that shareholder value and the use of EV's for sales rewards should take centre stage, management within First National Bank (FNB) is still inclined towards traditional metrics, creating scenario's where the business unit and short-term performance takes preference over the intent of the organisation and long-term sustainable shareholder value.

With international organisations entering the South African financial market, local financial institutions cannot be managed as they have been managed previously within a protected market. South African financial institutions need to adjust themselves to become world-class value creating organisations, where the shareholder comes first.

Opsomming

Die skepping van welvaart vir aandeelhouers is 'n belangrike maatstaf vir korporatiewe sukses. Waarde-gebaseerde bestuur (WGB) is 'n effektiewe bestuursraamwerk met die doel om alle bestuursprosesse te fokus op die skepping van aandeelhouerswaarde. Daarom word alle vlakke in die onderneming aangemoedig om te fokus op die skepping van waarde. Verskeie meetinstrumente is ontwikkel om waardeskepping binne die onderneming te meet. Die verdiskonteerde kontantvloei na die huidige waarde teen die geweegde gemiddelde koste van kapitaal is die kern van al hierdie meetinstrumente.

Die toepassing van WGB-beginsels op die laer vlakke binne die onderneming is krities om te verseker dat personeel WGB toepas in hulle daaglikse werk. Deur die uiteensetting van waarde toevoeging in die onderliggende komponente (waardekomponent kaarte), kan die onderliggende drywers van waarde verbind word met die oorhoofse strategie van waardeskepping.

Vir oorlewing in 'n aanhoudend-veranderende omgewing is die toepassing van WGB in die finansiële dienstesektor krities. Vir organisasies is dit krities om WGB toe te pas op kliënt- en produkvlak om te verseker dat hulle waardeskeppers is. WGB-metodes, soos vasgelegde waarde (VW) en kliënt lewenstydperk waarde (KLW) verklaar die impak wat 'n produk of kliënt het op die waarde van die onderneming.

Ten spyte daarvan dat bestuur binne Eerste Nasionale Bank (ENB) saamstem dat aandeelhouerswaarde en die gevolglike gebruik van VW as vergoeding vir verkope deel moet wees van die kern tot die sukses van die onderneming, is bestuur binne ENB nog steeds ingestel op tradisionele meetinstrumente wat veroorsaak dat bestuur gefokus is op korttermyn-besluitneming en dat die individuele besigheidseenheid se belange vooropgestel word bo volhoubare langtermyn-aandeelhouerswaarde.

Met die toetrede van internasionale ondernemings tot die Suid-Afrikaanse finansiële dienstemark, kan plaaslike finansiële instellings nie voortgaan om nog bestuur te word asof hulle in 'n beskermde omgewing is nie. Suid-Afrikaanse finansiële instellings moet hulself voorberei om wêreldklas waardeskeppende ondernemings te word, waar die aandeelhouers voorkeur geniet.

Key terms:	Sleutelterme
Customer lifetime value (CLV)	Kliënt lewenstydperk waarde (KLW)
Economic value added (EVA)	Ekonomies toegevoegde waarde (ETW)
Embedded value (EV)	Vasgelegde waarde (VW)
Shareholder value	Aandeelhouerswaarde
Shareholder value added (SVA)	Aandeelhouerswaarde toegevoeg (AWT)
Discounted cash flow (DCF)	Verdiskonteerde kontantvloei (VKV)
Value-based management (VBM)	Waarde-gebaseerde bestuur (WGB)

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Economic value added (EVA®), cash flow return on investment (CFROI®), market value added (MVA), shareholder value analysis (SVA) are just a few of the new terminologies and concepts that management and organisations are bombarded with in the last decade. Most of these concepts are promoted and sold as the ultimate solution for corporate success by various consulting firms. They proclaim that their unique measure would assist business in creating value. Value creation has evolved over the last couple of years as one of the most popular business topics. Today the majority of organisations promulgate their commitment to the creation of shareholder wealth. Information reflecting value creation to base decisions on are becoming the cornerstone for the success of managers. Shareholder value is now a widely used indicator to measure the success of an organisation (Matzler *et al.*, 2005:671; Starovic *et al.*, 2004:10; Armitage, 2003:1; Harris, 2002:2).

The question arises on what were the causes over the last couple of years that led to this sudden interest and focus on value creating measures? In 1776 Adam Smith wrote in his book, *Wealth of Nations*, that every individual endeavours to employ his capital so that its product may be of greatest value (Martin & Petty, 2000:3). Smith, therefore, already defined in 1776 that investors require a return on their capital. De Jonge (2003a) believes that there is a strong correlation between the complexities of organisations and markets and the development of how value is created. The focus on value creation is therefore not new, but the continuous changes in the context of how value is created, is new.

The factors that created this sudden focus can be grouped into the following categories (Pettit, 1999:60; Olsen, 2002:2):

- The change in institutional investors' behaviour and attitude towards investments;
- The change in the relationship between organisation, employee and shareholder; and
- The change in the marketplace where organisations are operating.

These changes required new information and new thinking. Management accountants and therefore managerial accounting have to re-think if the information they provide still meets business needs. Bromwich (1998:387) is of the opinion that management accounting has been under increased challenges to adopt new approaches that have been developed to correct perceived inefficiencies in existing management accounting systems. Saluzzi (2000:1) states that corporate reporting is currently in the process of a quiet revolution. Leading edge companies are more and more adopting reporting concepts and standards that reflect value creation within the organisation.

1.2 Background

The maximisation of the equity value of organisations should be the core focus of companies (Mabberley, 1998:5). This means that the creation of shareholder value should be the primary focus for an organisation. Managers need to consider the impact on value for each decision they take; therefore they require information focusing on the value generated internally and also identifying ways in which value can be increased. The Company Law Steering Group within the UK mentioned that the maximisation of value for shareholders should be the ultimate objective of organisations (Starovic *et al.*, 2004:3).

It is said within management accounting literature that one can determine if a specific subject is in fashion when the following are present (Ameels *et al.*, 2002:12):

- There are numerous "different" measures, all claiming to be the ultimate solution for the organisation's problem, that compete against each other; and
- There are a plethora of acronyms used that actually describes the same framework.

Managing to maximise shareholder value, also referred to as value-based management (VBM), is such a fashionable framework. A recent literature study on the approaches of six consultancy groups (Stern Stewart & Co., Marakon Associates, McKinsey & Co, PriceWaterhouseCoopers, LEK Consulting and Holt Value Associates) on VBM revealed that there is a clear unanimity on the focus to maximise shareholder wealth, but they all suggest different types of measures, systems, processes and have different views on strategy development (Ameels *et al.*, 2002:3).

VBM became a popular topic when Rappaport published his first book: *Creating Shareholder Value* in 1986 (Starovic *et al.*, 2004:4; Brown *et al.*, 2000:3). In 1998, Rappaport proclaimed that shareholder value would become the global standard to measure business success in the next decade (Rappaport, 1998:1). According to Starovic *et al.* (2004:2) all kinds of companies have publicly proclaimed their commitment to shareholder value. VBM gained so much widespread support that Fortune Magazine has a special issue on the top U.S. wealth creating companies. The Wall Street Journal also provides rankings of listed organisations based on their shareholder returns (Martin & Petty, 2000: xiv). The creation of shareholder wealth is one of the most widely discussed frameworks within the business world today (Armitage, 2003:1).

There has been a change in management objectives (Ameels *et al.*, 2002:9). Management realises more and more that traditional earnings do not reflect real value creation. Traditional measures are accounting-based and do not take into account the risk and impact of inflation or opportunity costs.

Shinder and McDowell (1999:1) are of the opinion that there is a clear need for organisations to adapt to today's dynamic and complex business environment. There is increased pressure from the investment community on managers to deliver value on their investment.

With a continuous focus on value creation, traditional accounting measures are no longer sufficient. Studies at Svenska Cellulosa Aktiebolaget (SCA, 2004) have shown that the accounting system lacks in reflecting the business reality properly. It also lacks in the provision of indicative information on the companies' true profitability or value creation.

In a changing world it is even more crucial to understand the value drivers of the organisation. Ameels *et al.* (2002:4) said that management accounting have become under increased pressure in the last decade to adopt new approaches that would combat changes in the economic environment and to rectify perceived shortcomings in existing controlling structures.

Not only is there currently a shift within the management accounting arena to adopt new approaches, but various industries also had to adapt to dramatic changes within their environments.

The financial services industry environment also experienced dramatic changes over the last couple of years. Berg (2000:13) identified a number of changes:

- The customers of financial institutions are more educated than ever before, and have a clearer understanding of their product needs.
- Institutions are exposed to a vast array of information on customers, products, markets, etc.
- Margins are under pressure; therefore organisations need to seek new ways of generating revenue to survive.
- New ways to service the client and the technology that supports it create difficulty for existing role-players to be cost effective.

The challenge for financial institutions is to find alternative ways in creating value, thus increasing revenue, without increasing cost simultaneously. This is also coupled with the pressure to provide products and services that continuously meet customer expectations and are perceived as value for money.

According to Skari (2005), the understanding of customer value will determine everything the organisation intends to do. Firms that delivered better customer value than their competitors had grown and prospered the last decade. One would expect that as you increase the value for your customer, your shareholder value would increase. Research done by Nayyar (2000) showed in fact that there is a tendency for shareholder value to rise only to a certain point and then to decline. Therefore organisations have to shift their focus of customer value enhancement, to those customers who contribute to shareholder value, or who display the potential of adding shareholder value over the lifetime of the relationship. Understanding that your customer profitability is not enough and by understanding the lifetime value of customers, organisations will not only be able to develop effective marketing, sales and service strategies, but can also improve the bottom line of the organisation (Collins, 2003a).

According to Ameels *et al.* (2002:4) VBM is another modern-day "hot" topic that claims to change financial management at the highest level in some of the world's largest companies. "Maximising shareholder value" has become the mantra for executives of both public and private companies (Johnson, 2003:14).

1.3 Motivation

The creation of shareholder wealth has been widely accepted as the primary goal of organisations in recent years (Starovic *et al.*, 2004:3). VBM has not been developed by the academia, but is a product from the business world (Martin & Petty, 2000:xiii). Most companies are still using performance metrics such as earnings per share (Ballow *et al.*, 2004:2). Shinder and McDowell (1999:3) raised the question of a new framework to be used by companies where new measures are based on the economic theory and not the traditional accounting framework. Over the last couple of years various metrics, definitions and frameworks are presented by consultancies that would assist the implementation of VBM within organisations (Starovic *et al.*, 2004:10; Bromwich & Walker, 1998:391).

There is currently a broad spectrum of definitions being given to VBM. Some writers believe that cash flow is the cornerstone, whilst other believe that it is a holistic management approach that encompasses goals, structures, processes and human resources practices. To define VBM is difficult. On the one hand VBM is defined against the broad background of creating shareholder wealth that lies at the heart of VBM, whilst others narrow VBM down to a management process or a single metric (Starovic *et al.*, 2004:3).

According to Spencer and Francis (1998:2) much of the literature has been driven by consultants so far. Despite the unanimity that the focus of VBM is to increase shareholder wealth, Ameels *et al.* (2002:3) highlighted that the consultancies have different views on a lot of the aspects.

Despite the focus from executives to use VBM within the organisation, there seems to be a low level of adoption of the VBM principles or metrics at a divisional level (Spencer & Francis, 1998:14). Organisational structure, autonomy, governance and the industry sector are a number of barriers to implement and adopt metrics at a divisional level. Despite these barriers managers at a lower level still require

measures that would enable them to optimise maximum value exchange. It seems that the lack in understanding of VBM, or an agreed principle of what is encompassed within VBM, further cripples the basic requirements of managers (Spencer & Francis, 1998:14). There are still many executives that don't know how their business units create value (Koller & Peacock, 2002:105).

Spencer and Francis (1998:15) believe that the new value-based metrics must be used in some form or another at divisional level, to ensure goal congruence. If the performance of an organisation is dependent on the performance of the individual divisions, it is unimaginable how the prolonged benefit of value-based metrics can be achieved if there is no congruence in metrics at organisation level and divisional level. The challenge is to make value measures relevant to all employees within the organisation (Sammer, 2001:1).

There is an abundance of metrics under the VBM umbrella available within the market. This is referred to as the metric war between consultancies (Armitage, 2003:1). Traditional accounting measures are continuously criticised as not reflecting true value creation of the organisation. The various proponents of VBM have developed their own metrics in response that they claim are better measures and motivational to value creation (Armitage, 2003:1).

The challenge for financial institutions is to determine the optimum value creation for customers without destroying shareholder value. This, within itself, requires an understanding of the underlying drivers of value creation at customer- and product level. For the banking industry it includes the understanding of value drivers at an account level. The size of the account base (millions of accounts) of the larger banks within South Africa adds further complexity and difficulty to the task. The competition within the financial services industry within South Africa is fierce. It is a continuous struggle among the "big four" banks (ABSA, FNB, Standard Bank and Nedcor) for profitable market share to increase value over the long term. The challenge faced by these institutions is the ability to understand the optimum mix of customers, products and delivery.

The management of attrition within an organisation is a typical example of what managing value creation drivers are. According to the Corporate Executive Board

(1999:4) financial institutions must do everything possible to retain profitable customers within the current competitive market. But it is not always that easy. Berg (2000:15) questioned how an organisation could be sure that the right resources are allocated to the areas that will provide the best payback. It is commonly known that to win a new customer requires more resources than cross-selling to existing customers. But it also doesn't mean that the more products a customer hold, the more profitable the customer is. The question that arises is what are the basic value drivers within the product holding of customers?

1.4 Problem Statement

In research done by the Corporate Executive Board (1996:6) on financial institutions worldwide it was found that institutions seek answers to two basic questions:

- What is the total potential value of a specific customer?
- How to optimise value exchange?

Peppers and Rogers (2005:1) believe business leaders need to focus on the most important asset in the short- and long-term, namely customers. Despite this, companies do not rush to adopt a customer value focus (Skari, 2005:1).

If institutions seek answers on how to optimise value from the customer base the question arises what measures should be used within the financial services industry at the individual customer- and product level to increase value for the organisation?

1.5 Field of Research

The empirical research will be conducted within First National Bank, a division of FirstRand Bank Limited, one of the largest financial institutions within South Africa. This division faces similar pressure to continuously maximise shareholder value. Within the holding company a metric (economic profit) has been developed and are used as a measurement tool for each subsidiary. The proposed research will investigate the application of VBM at the lower decision-making levels, specifically the customer- and product level within the retail environment.

1.6 Research Goals

Currently there is a plethora of definitions for VBM and even more metrics that can be used. There are numerous publications on the effectiveness of specific metrics to measure value creation for shareholders. One of the key challenges remains the use of VBM at the lower levels of the organisation (Spencer & Francis, 1998:14; Sammer, 2001:1). The financial services industry, specifically Lloyds TSB, was one of the early implementers of VBM (Haspeslagh *et al.*, 2001:63). Most of the research so far, focused on the use of VBM for the organisation at large and secondly, it focuses on implementing value drivers within the organisation. For banks, value is derived through the effective relationship between the bank and its customers through the product and service offering. When a bank adopts VBM as a framework, it is critical that at the lower levels decisions will be made regarding customers and products that would generate long-term value. There are therefore, four primary goals within this research:

A: The conceptualisation of the VBM framework.

B: Determine the use of and exposure to VBM and related principles within the organisation.

C: Evaluation of VBM metrics at the customer- and product level within the organisation.

D: Recommendations from the results of primary goals A, B and C.

For primary goals A and B there will be secondary goals:

A: The conceptualisation of the VBM framework. It is important to gain an understanding and an opinion on the definition and characteristics of VBM and the related metrics. The VBM framework needs to be understood from concept to successful implementation. This also includes the application of VBM at lower levels within the organisation and within the financial services industry. To achieve this, the following secondary goals need to be achieved:

A.1: The factors that lead to the focus on value creation (Chapter 2 paragraphs 2.2 – 2.4).

A.2: The organisational scope and components of VBM (Chapter 2 paragraph 2.5).

A.3: The characteristics of the prominent VBM metrics (Chapter 2 paragraph 2.6).

A.4: Key success factors for a VBM implementation (Chapter 3 paragraph 3.2).

A.5: The application of VBM at the lower levels in the organisation (Chapter 3 paragraph 3.3).

A.6: VBM within the financial services industry (Chapter 3 paragraph 3.4).

A.7: The need for VBM principles at the customer- and product level (Chapter 4).

B: The determination of the use and exposure to VBM and related principles within the organisation. To be able to understand the use and need for VBM information the following is required (Chapter 5):

B.1: To understand the most prominent measures or tools used at the various levels of the organisation for decision-making and scorekeeping.

B.2: To determine the importance of the information and tools used.

B.3: To determine the level of exposure to the concept of VBM and the perception about VBM.

C: Evaluation of VBM metrics at the customer- and product level within the organisation (Chapter 6).

D: Recommendations from the results of primary goals A, B and C (Chapter 7).

1.7 Hypothesis

The current definitions of VBM range from defining a specific VBM metric (e.g. EVA) to defining VBM as a holistic solution for company success. It is believed that VBM is broader than only cash-flow metrics, but the researcher is not convinced that VBM can be attributed as the holistic solution for company success. The researcher therefore would focus first to provide a comprehensive definition of VBM and its core components. It is also believed that there are common elements within all of the VBM metrics. By understanding the theory it will be possible to determine what the key components are of the VBM metrics that can be applied at the customer- and product level. It is believed that limited research has been done on the use of VBM metrics at the customer- and product level within the financial services industry.

Economic profit is currently used at a group level. It is not cascaded down to lower levels within the organisation. Managers at lower levels are therefore not necessarily exposed to VBM. It is believed that there is a limited level of understanding and use of

VBM-related principles and measures at the lower levels of the organisation. It is also believed that despite the criticism of traditional accounting metrics, they are still predominantly used as measures of success and within the decision-making process.

1.8 Method of Research

The research methods that will be used within this research are the following:

1.8.1 Literature Research

A literature study has been done to provide a conceptualisation of the VBM Framework. The literature study focuses on the following:

- The various definitions, metrics and success factors of VBM.
- The application of VBM within the financial services industry.
- The application of VBM at divisional or business unit level.
- The need to apply VBM at the customer- and product level.

1.8.2 Empirical Research

Two empirical studies were conducted to determine the use of and exposure of VBM within the organisation and the application of VBM at customer- and product level. The results of the two studies are presented in two separate chapters (Chapter 5 and Chapter 6). The empirical research can be distinguished as:

a) Empirical Research A: The determination of the use of and exposure of Value-Based Management within the organisation

Through questionnaires, the use and exposure of VBM within the organisation were determined. The questionnaires were sent out to various managers within the organisation to be completed. The aim of the questionnaire was to ascertain the following information:

- The current business goals and the information to measure the business goals.
- The use of VBM within the organisation currently.
- The current level of confidence with the information.
- The need for additional VBM information.

Population and sample: The population comprised of the middle to senior management within the organisation. A total of 92 individuals were identified. The

sample was the completed questionnaires received back from the population. A total of 34 questionnaires were received back.

Data collection and recordings: The questionnaires were sent out to the population by e-mail. The respondents had the choice to complete the questionnaire electronically or by hand.

Data preparation and interpretation: The data was captured in a single database. Through the use of spreadsheets and graphical information the data was analysed and interpreted in the context of the literature research.

b) Empirical Research B: The evaluation and recommendation of Value-Based Management metrics at the customer- and product level

An investigation and evaluation of two VBM metrics at the customer- and product level within the organisation were done. This empirical study was conducted by investigating the following:

- The theoretical background of the metric.
- The underlying value drivers within the metric.
- The application and usage of the metric within the organisation.

1.9 Outline of the Dissertation

CHAPTER 1: INTRODUCTION

In this chapter the aim is to set the context of why the specific research topic has been chosen. In this chapter the problem statement and hypothesis are formulated. The research goals and the research method are given. A list of key terminology within the research is provided at the end of the first chapter.

CHAPTER 2: VALUE-BASED MANAGEMENT: THEORY

The aim is to provide a theoretical background to VBM. The following secondary goals (refer to paragraph 1.6 on page 8) are addressed within this chapter:

A.1: The factors that lead to the focus on value creation. (Chapter 2 paragraphs 2.2 – 2.4)

A.2: The organisational scope and components of VBM. (Chapter 2 paragraph. 2.5)

A.3: The characteristics of the prominent VBM metrics. (Chapter 2 paragraph. 2.6)

CHAPTER 3: VALUE-BASED MANAGEMENT – PRACTICAL CONSIDERATIONS

In this chapter the aim is to provide the key success factors of a successful VBM implementation. In this chapter information is provided on the application of VBM at the lower levels within the organisation. Information on the application of VBM within the financial services industry is provided at the end of chapter three. The following secondary goals (refer to paragraph 1.6 on page 8) are addressed within this chapter:

A.4: Key success factors for a VBM implementation (Chapter 3 paragraph 3.2).

A.5: The application of VBM at the lower levels in the organisation (Chapter 3 paragraph 3.3).

A.6: VBM within the financial services industry (Chapter 3 paragraph 3.4).

CHAPTER 4: THE THEORY OF VALUE-BASED MANAGEMENT AT CUSTOMER- AND PRODUCT LEVEL

A key theme of the research is the application of VBM at the lowest levels within the financial services industry. In this chapter the need to apply VBM concepts at the customer- and product base is discussed and the possible VBM metrics that can be used are provided. The following secondary goal (refer to paragraph 1.6 on page 9) is addressed within this chapter:

A.7: The need for VBM principles at the Customer- and product level (Chapter 4).

CHAPTER 5: VALUE-BASED MANAGEMENT WITHIN THE ORGANISATION

In this chapter the results of the research on the current knowledge and need for VBM related information within the organisation are discussed. In this chapter the second primary goal (refer to paragraph 1.6 on page 9) is addressed, namely to:

B: Determine the use of and exposure to VBM and related principles within the organisation.

CHAPTER 6: VALUE-BASED MANAGEMENT METRICS AT THE CUSTOMER- AND PRODUCT LEVEL – TWO CASE STUDIES

In this chapter the two possible VBM solutions at the customer- and product level within the organisation, being embedded value and customer lifetime value are investigated. The third primary goal (refer to paragraph 1.6 on page 9) is addressed in this chapter:

C: Evaluation of VBM metrics at the customer- and product level within the organisation.

CHAPTER 7: CONCLUSIONS ANS RECOMMENDATIONS

In the last chapter a summary of the research is provided. Specific findings and conclusions derived from the research are discussed in more detail. Recommendations on the use of VBM and the application of VBM at the lower levels of the organisation are also made within this chapter. The fourth primary goal (refer to paragraph 1.6 on page 9) is addressed in this chapter:

D: Recommendations from the results of primary goals A, B and C.

1.10 Summary

The creation of shareholder wealth has become the mantra of executives today. Various consultancies promote VBM as a framework to ensure that organisations create value for their shareholders. There seems to be a disparate view on the real definition of VBM. Some proponents of VBM define VBM as broad as the context of creating shareholder wealth, whilst others narrow the definition down to a single metric. Added to this is the plethora of metrics that is sold as the most accurate measure of value creation for an organisation.

Despite the focus from both consultancies and executives on the implementation of VBM within organisations, most organisations still lack information at the core level – customers and products. Coupled with this is the seemingly low adoption of VBM at lower levels within the organisation, and that most executives don't know how value is created within their business units.

The pressure to create value is also felt within the financial services industry. There is further pressure on the banks to provide banking services to previously un-banked markets, and the threat of new entrants is imminent with the recent take-over of ABSA by Barclays Bank Plc.

This research will therefore focus on the following:

A: The conceptualisation of the VBM framework.

B: The determination of the use of and exposure to VBM and related principles within the organisation.

C: The evaluation of VBM metrics at the customer- and product level within the organisation.

D: Recommendations from the results of primary goals A, B and C.

1.11 Terminology

Term	Acronym	Definition
Cash flow return on investment	CFROI	CFROI can be defined as an estimate of the real rate of return earned by a firm on all its assets. CFROI determines the relationship of cash generated within the organisation relative to the cash invested (Madden, 1999:13; Starovic *et al.*, 2004:13; Ameels *et al.*, 2002:19). Refer to paragraph 2.6.3 on page 58.
Cash value added	CVA	CVA measures the cash that is generated by the company in excess of the cash required by investors (Martin & Petty, 2000:128; Young & O'Byrne, 2001: 428; De Jonge, 2003f). Refer to paragraph 2.6.5 on page 61.
Cost of capital	-	The cost of capital is the minimum acceptable return on an investment. The cost of capital represents the minimum rate of return an investor will expect taking into account the risk of the investment (De Jonge, 2005b). Refer to paragraph 2.6.1 on page 50.
Customer lifetime value	CLV	CLV is the NPV of future profits of a customer that should realise for a predicted number of years. CLV therefore provides a holistic understanding of the various drivers at a customer level that have an impact on the overall value creation within the organisation (Cokins & King, 2005; Hughes, 2003; Ryals & Knox, 2005:458). Refer to paragraph 4.3 on page 110.
Discounted cash flow	DCF	A method used where future cash flows are discounted to the present value using an appropriate discount rate (Young & O'Byrne, 2001:23; Investopedia.com, 2005a; Madden, 1999:66). Refer to paragraph 2.6.1 on page 50.

Earnings before interest and tax	EBIT	Measuring the financial performance of an organisation calculated as revenue minus expenses excluding tax and interest paid (Investopedia.com, 2005g; De Jonge, 2003j).
Earnings per share	EPS	Net profit after dividends on preference shares divided by the number of outstanding shares (Investopedia.com, 2005h; De Jonge, 2003k).
Economic profit	EP	EP is also known as residual income. Residual income is the accounting income attributable to shareholders at the end of the period less the accounting book value of shareholder funds at the end of the previous period multiplied by the cost of capital (Starovic *et al.*, 2004:11; Martin & Petty, 2000:81). Refer to paragraph 2.6.2 on page 53.
Economic value added	EVA	EVA is a refined version of economic profit. EVA is the net operating profit after tax less the weighted average cost of capital. Various adjustments are made to profit and capital to ensure that the profit is close to cash flow and that the capital base utilised by the business are fully represented in the calculation (Ameels *et al.*, 2002:16; Martin & Petty, 2000:88; Starovic *et al.,* 2004:12) Refer to paragraph 2.6.2 on page 54.
Embedded value	EV	Embedded value is the free surplus cash flows plus the value of in-force business (Skandia, 2003; Kuys, 2000:15) Refer to paragraph 2.6.7 on page 63.
Free-cash flow	-	Free-cash flow is the cash that is available after the payment of cash expenses and operating investment required by the firm (De Jonge, 2003b). Refer to paragraph 2.6.1 on page 49.

Market value added	MVA	MVA is the difference between the equity market valuation of a listed or quoted company and the sum of the adjusted book value of debt and equity invested in the organisation (De Jonge, 2003g; Young & O'Byrne, 2001:55). Refer to paragraph 2.6.7 on page 63.
Net income before tax	NIBT	NIBT is the operating profits before tax (Martin & Petty, 2000:89; Investopedia.com, 2005d).
Net operating profit after tax	NOPAT	NOPAT represent the earnings of an organisation with no debt (Investopedia.com, 2005i; De Jonge, 2003l).
Net present value	NPV	Net present value is the difference between cash in-flows and cash out-flows discounted to the present value using an appropriate discount rate (Investopedia.com, 2005b; De Jonge, 2003d).
Residual income	RI	Residual income is the accounting income attributable to shareholders at the end of the period less the accounting book value of shareholder funds at the end of the previous period multiplied by the cost of capital (Ameels *et al.,* 2002:15; Bromwich & Walker, 1998:391).
Return on equity	ROE	ROE is the net income divided by the shareholder funds. ROE is an indication of how a company generates profits from the available capital resources (Investopedia.com, 2005c; De Jonge, 2003e; Rappaport, 1998:29).
Return on investment	ROI	The profit realised from an investment expressed as a percentage of the capital invested (Investopedia.com, 2005e; De Jonge, 2003h).
Return on net assets	RONA	Net income expressed as a percentage of the net assets. Net assets = cash & working capital requirements + fixed assets (Investopedia.com,

		2005f; De Jonge, 2003i).
Shareholder value added	SVA	SVA is the difference between the present value of incremental cash flow before new investment and the present value of investment in fixed and working capital (Ameels *et al.*, 2002:21; Starovic *et al.*, 2004:10). Refer to paragraph 2.6.4 on page 59.
Total business return	TBR	TBR is an internal rate of return (IRR) measure that compares the starting value of a business with the net cash flows realising in the period, plus the value of the business at the end of the period. TBR is the internal of the external TSR metric (Ameels *et al.*, 2002:13; De Jonge, 2003c; Starovic *et al.*, 2004:14). Refer to paragraph 2.6.6 on page 62.
Total shareholder return	TSR	TSR is the change in the capital value of a listed or quoted company over a period. TSR is also known as the shareholder rate of return or as total business return (Ameels *et al.*, 2002:13; De Jonge, 2003c; Starovic *et al.*, 2004:14). Refer to paragraph 2.6.6 on page 62.
Value-based management	VBM	VBM is a managerial framework that links strategy, measurement and operational processes by ensuring that there is goal congruence – the creation of shareholder value. Discounted cash flow lies at the heart of these metrics (Young, 1999:1; Lindström, 2001; De Jonge, 2005a; Martin & Petty, 2000:47; Chopp & Paglia, 2002:2; Harris, 2002:1; Starovic *et al.*, 2004:2; Ameels *et al.*, 2002:8). Refer to paragraph 2.5.5 on page 41.
Weighted average cost of capital	WACC	The WACC method calculates the weighted cost of capital of the organisation by calculating the cost of market valuations, current yields and

		cost after tax and weight these costs according to the contribution to the capital source pool (Young & O'Byrne, 2001:163; Martin & Petty, 2000:65; Rappaport, 1998:37; Young, 1999:1). Refer to paragraph 2.6.1 on page 51.

CHAPTER 2: VALUE-BASED MANAGEMENT - THEORY

"Now Corporate Boards and CEO's almost universally embrace the idea of maximising shareholder value. It has become politically correct, though it is not always fully implemented in practice."
(Rappaport, 1998:xiii)

2.1 Introduction

The maximisation of shareholder value is adopted by more and more organisations as their paramount goal. Over the last decade CEO's of top companies embraced the creation of shareholder wealth in their financial statements and public announcements (Starovic *et al.*, 2004:2; Johnson, 2003:14). Pressures from the investment community and shareholders on managers to create and track value creation within their organisations speared a quest for new metrics or tools to provide information that can support them in the process (Young, 1999:1). VBM is the management process that ensures that companies are creating shareholder value (De Jonge, 2005a).

The aim of this chapter is to provide the theoretical background to VBM. The first primary goal, the conceptualisation of VBM, is addressed within chapters two to four. In this chapter the following secondary goals will be addressed as discussed in paragraph 1.6 on page 8:

A.1 The factors that lead to the focus on value creation (paragraphs 2.2 – 2.4 on page 20)

A.2 The organisational scope and components of VBM (paragraph 2.5 on page 35)

A.3 The characteristics of the prominent VBM metrics (paragraph 2.6 on page 49)

The discussion of these goals will centre on the following:

- A background of the changes within the environment that lead to the new quest for value and value creation. This will provide a high-level understanding of the corporate changes that occurred over the last couple of decades. It will provide a background to the progress and challenges that have been made within the managerial accounting arena to meet the new demands.
- The conceptualisation of value, how it is created and measured, will be discussed.

- Why traditional accounting metrics are inadequate as measurement tools and by highlighting the strengths of the new metrics that have evolved over the past years.
- The provision of an understanding of a VBM system.
- An overview of the most prominent VBM metrics that have evolved over the years.

2.2 The Quest for Change

The ways companies have been managed have changed dramatically over the last two decades. Globalisation, the resurgence of investor power, increased governance requirements for protection of investors and other stakeholders in organisations and the realisation by management to maximise shareholder value contributed to these changes (Deakin, 2005:11; Davies, 2001:1; Johnson, 2003:14).

The various stakeholders (investors, analysts, management, etc.) require new information to assist them in making the "right" decisions (Young, 1999:1). The executive should play the role of a conductor within an organisation to ensure that the various components are functioning in harmony, thus having goal congruence. Executives therefore require additional information to ensure that collaboration is achieved between the various parts of the organisation.

The "new" focus on shareholder wealth is a consequence of the following changes in the markets (Young & O'Byrne, 2001:6):

- Globalisation and exchange controls.
- The end of capital and exchange controls.
- Advances in information technology.
- More liquid security markets.
- Improvements in capital market regulation.
- Generational changes in attitudes towards savings and investments.
- The expansion of institutional investment.

Pohlman and Gardiner (2000:3) support this and believe that the business environment has undergone a total metamorphosis over the past century. There are now challenges that could not even be dreamt of a hundred years ago. Organisations

therefore need to adapt to today's dynamic and complex business environment (Shinder & McDowell, 1999:1). The changes within the business environment create conflicting signals to management on the actions they need to take to stay abreast of their competitors. This makes it difficult for organisations to function in harmony, achieving goal congruence.

The changes that lead to the sudden focus on value creation can be grouped into:

- Business environment changes.
- Investor relationship changes.
- Changes in the focus of management.

Haspeslagh *et al.* (2000:2) believe that for executives worldwide the delivery of shareholder value has become mandatory and cannot be ignored. This is due to increasing pressure on them to perform within an environment of intensifying competition, globalisation of markets and more active and powerful institutional investors.

2.2.1 Business Environment Changes

The competitors of organisations are not anymore only those in close proximity, but are all over the world. Globalisation forces organisations to take into account what your competitors are doing globally. The companies' investors are not only exposed to market conditions locally, but are impacted by world economic trends. Most of the South African blue-chip companies are now trading and expanding into international markets. Rappaport (1998:7) is of the opinion that globalisation and privatisation forced executives throughout the world to focus on shareholder value.

Due to the technological and information advances in this era, organisations are a mouse-click away from their customers. The reality is that competitors are also a mouse-click away from their customers. Fung (2000) mentioned the fall of decade old "bricks and mortar" businesses that had to close their doors due to the Internet revolution. The impact of online shops such as Amazon and Kalahari.net changed the way business is done.

There is a strong correlation between the development of VBM and the growth in the internal and external complexity of organisations and the markets (De Jonge, 2003a).

De Jonge (2003a) grouped the growth in the complexities of organisations and markets into four eras:

- *Pre-Industrial Revolution:* Companies were relatively small. The business environment was stable and clear. It was relatively straightforward to understand the basic drivers of value creation.
- *Industrial Revolution:* During this era concepts such as economies of scale by investing in machines, productivity and efficiency and associated measures became important for businesses. This resulted in the need for basic value management information to understand the core value drivers. This is referred to as implicit value management.
- *19th – 20th Century:* During this era companies became more complex through diversification of products and services. This required multiple activities performed within the organisation that required the allocation of capital and other resources. This resulted in a continuous research of new concepts and solutions that would support management and other stakeholders in managing and understanding the business. These concepts included ROI (return on investment), DCF (discounted cash flow), NPV (net present value), and ABC (activity-based costing), etc. This is referred to as explicit value management.
- *Post 2000:* Scandals, such as the dot.com bubble, Enron and Parmalat, shocked the business world. This requires a more holistic approach of how value is created within an organisation. A prominent idea to prevent further scandals is the recommendation for organisations to have a long-term view towards value creation. This is referred to as the holistic VBM-era.

Existing management theories and practices are outdated due to these changes. These approaches have often been too simplistic, one-dimensional and non-integrated for the sophisticated, multidimensional and complex problems that are typical of today's business environment (Pohlman & Gardiner, 2000:3).

2.2.2 Change in Investor Relationship

Over the last decades the relationship between investors and organisations has seen a clear shift whereby institutional investors became much more involved in the running of the business. There was a change in the approach during the early 1990's that institutional investors took with regard to the performance of organisations in their portfolio. Martin and Petty (2000:11) stated that institutional investors do not make a

choice anymore with their "feet", but started to get involved in the running of the organisation by having dialogue with the management of the organisation.

The growth in institutional investor activism can be linked to two factors (Martin & Petty, 2000:13):

1. The growth in institutional holding in common stock since the 1970's. Institutional investors control over half of the public traded companies within America today. They represent the general public, whose pensions and savings they manage. This means that the major shareholders are "us" who invest into these funds.
2. In 1992 regulation changed whereby independent investors are allowed to engage in communication freely with one another over proxy contest issues. This resulted in the formation of investor forums. One such forum is the CII (Council of Investor Institutions) that meet twice a year to discuss common issues.

The investment community is putting increased pressure on management to deliver value (Shinder & McDowell, 1999:1). It is not uncommon for organisations to endorse the creation of shareholder value within the mission statement (Martin & Petty, 2000:4). Therefore is it also not controversial to have the creation of shareholder wealth as the goal for managers. Shareholders do own the organisation after all.

The importance of other stakeholders is not undermined at all. Research conducted by Ameels *et al.* (2002:3) indicated that the interest of all stakeholders was best met when the shareholders' interests are the primary objective. The late CEO of Coca-Cola, Robert Goizueta, said, "We work hard to remember that the wonderful things our company is capable of - serving our customers, creating jobs and positively impacting society - happen only as long as we fulfil our vision of creating value for our shareholders" (Armitage, 2003:1).

Organisations need to ensure they are competitive to survive. By doing this, the interests of all stakeholders of an organisation will be served (Rappaport, 1998:7). The long-term destiny of organisations depends on the financial relationship that an organisation has with each stakeholder. Employees seek wages, customers require value for money and suppliers and financiers require payments. To meet these

demands an organisation must generate enough cash. Cash flow gives an indication of the financial strength of the organisation (Investopedia, 2005a).

Management must continuously choose between short-term profit goals, and long-term investment opportunities. Too often short-term profit takes precedence over long-term investments. According to Knight (1998:37) investors require management to manage quarterly earnings for consistency, but have also invested in the organisation for returns over the long-term.

The 1980's era is referred to as the "bust-up LBO (leverage buy-out)" era (Martin & Petty, 2000:12). Underperforming companies were bought up, divisions were sold off and retrenchments of staff were common. The leaner, meaner and better performing companies were then sold back to the market through public offerings. The take-overs were part of the strategies of the institutional investors to support shareholder returns. This changed in the early 1990's when institutional investors started to get involved in discussions with management to ensure that management focuses on the long-term growth of their investments. Several public American pension funds started to promote their active involvement during the late 1980's in the companies within their portfolio. One of these funds is the Californian Public Employees Retirement System (CalPERS). These institutional investors focus on organisations that are under-performing compared to their market peers. The CII publishes a yearly focus list. This list consists of organisations with a poor historical performance. It is therefore clear that organisations that focus on shareholder value creation and whose performance is above average to their industry peers, are not likely to be targeted by institutional investors (Martin & Petty, 2000:20).

Shareholders are, after all, the owners of an organisation. The institutional investors are putting a great deal of pressure on management to increase shareholder value. By putting the creation of shareholder value as the primary objective of an organisation, management thereby ensures there is an overarching goal for the organisation and can assist in achieving goal congruence.

The resurgence of investor power forced management to put the creation of shareholder wealth as the primary objective of an organisation. Analysts, investors

and management require new information to understand the drivers of value and also determine if value has been created within an organisation.

2.2.3 Change in Management's Focus and the Agency Theory

The increasing activism of institutional investors, as discussed in the preceding section, resulted in a permanent change in the relationship between shareholder and managers of organisations. There are three fundamental points to this (Martin & Petty, 2000:27):

- The change in the ownership of common stock, the concentration of institutional investment into stock and their subsequent activism has heightened the concern of managers on the performance of the organisation.
- The primary focus and interest from these institutional investors are from the viewpoint of the common shareholder. Management therefore need to focus on creating shareholder value to avoid being the object of focused involvement from institutional investment.
- If a firm becomes the focused object of institutional involvement, management is advised to sit back and realise who is the real owners of the organisation.

The value gap is referred to as the difference between the value of the company operating at a level to maximise shareholder value and the current market value. A positive value gap is an invitation to corporate raiders to replace management (Rappaport, 1998:2). There are four factors that force management to adopt the shareholder orientation: (Rappaport, 1998:3)

- Relatively large ownership – this can lead to a conflict in the priorities of management and of the shareholders. By viewing the creation of wealth for shareholders this can assist in ensuring goals congruence.
- Compensation tied to shareholder return – by linking compensation to shareholder return, management will then focus on the maximisation of shareholder value to ensure that their compensation is maximised.
- Threat of take-over by another organisation – management must ensure to deliver superior shareholder value to minimise the value gap, thereby minimising the risk of take-overs.
- Competitive labour markets for corporate executives – managers compete with the same positions within and outside the organisation. Investors will appoint those that create shareholder value. Thus by linking also the reward

mechanism to the creation of shareholder wealth forces management to put shareholders interest at the centre stage (Lukas *et al.*, 2005:414).

Conflicting signals and confusing priorities continuously confront management (Knight, 1998:2). In the preceding sections this were also highlighted by the challenges that management faces between short-term decisions versus long-term decisions. It is a known statement that what you measure is what you get. If the reward system does not reflect the creation of shareholder value, management will not focus on that. Management therefore needs to adopt the mindset of managing for value.

There are two reasons why managers fail to maximise shareholder value, which can be summarised as:

- The agency theory refers to the lack in congruence between the goals of management and the goals of shareholders. This problem arises where the ownership of the company, the shareholders, are different from the management of the company. Fundamentally the control of the organisation is within the management structure, and they can make decisions that benefit themselves at the expense of the shareholders. The various proponents of VBM believe that it provides goal congruence and therefore limits the impact of the agency theory (Martin & Petty, 2000:5; Deakin, 2005:11). The aim of VBM is to create an environment that encourages staff to act as if they were the owners of the organisation.
- The inability of management to correctly understand how their decisions impact on shareholder value. Managers therefore need to consider the impact on value for each decision they take. With these requirements managers require information that will assist them to understand how value is generated internally, and also the various ways in which value can be increased (Mabberley, 1998:5).

The implication of value reporting has a big impact on management. Senior executives are under increasing pressure to perform. The pressure of "perform or perish" is continuously knocking on their doors. To invest and focus on value reporting assists management to understand their value drivers, and how to maximise shareholder value within the organisation (Saluzzi, 2000).

These changes within the markets resulted into management changing their objectives. The success of management lies in putting the interests of shareholders first. If management do not create shareholder value, their careers will be at risk. Institutional investors will start to pressure management and will get more involved in the running of the company. An organisation can become a target of corporate raiders and this will result in the replacement of incumbent management.

The factors that resulted in the adoption of VBM can be summarised as:

- The need to overcome the divorce of ownership from control.
- The adoption of new valuation techniques by investment analysts.
- The resurgence of shareholder activism.
- The limitations of existing traditional accounting measures.
- The continuous marketing from the various consultancies to adopt the new metrics.

(Botten & Sims, 2004:395; Mabberley, 1998:5; Martin & Petty, 2000:27)

2.3 The Quest for Value

In 1776 Adam Smith wrote in his book "*Wealth of Nations*", every individual endeavours to employ his capital so that its product may be of greatest value (Martin & Petty, 2000:3). In 1890 Alfred Marshall described in his publication "*Principles of Economics*" that economic value added is simply thinking through how you will create value (Martin & Petty, 2000:3).

Questions to be asked are why is it that some companies create so much value, and others destroy value or why is it that Microsoft's investors have a 56.16% return on capital and those of General Motors only a 1.99%? (Martin & Petty, 2000:5).

Value is the amount of, in terms of goods, services or money, considered being a fair and suitable equivalent for something else. Value can also be viewed as the principle, standard or quality considered worthwhile or desirable. To place the value on something implies to judge the worth of it (Dictionary.com, 2005).

Investors require the business to create value for them and therefore expect a return on their investments. Returns for investors are made up of the dividends received and

an appreciation of the value of the stock held. With the resurgence of investor power and the focus on shareholder interests, management are required to manage the company that will create returns for shareholders. Shareholders compare the return against the return they could easily earned if they have invested the same capital at the same risk. Investors require returns in excess of their perceived cost of capital. According to Chopp and Paglia (2002:2) the shareholders or owners of an organisation receive returns that more than compensate them for their perceived risk of investing. Value is then created for them.

For decades research has been done to assist management, analysts and investors to understand the basic value drivers and how to manage it to maximise shareholder returns (De Jonge, 2003a). The mismatch of financial accounting numbers and the stock market prices have created the development of various valuation tools and techniques that claims to be the ultimate solution for value creation. According to Knight (1998:7) the largest determinant of value for an organisation is cash flow. The basic understanding of the importance and impact of cash on valuing a firm has always been known to the entrepreneur (Stern & Shiely, 2001:1). This insight has been blurred by two factors:

- The split between ownership and control of publicly held corporations – the agency theory as we have discussed in a preceding section, and
- The wide spread acceptance of accounting measurements to dictate corporate value – this was never the original intent of accounting standards and measurements.

Businesses are all about creating value. The value creation process is only possible with the support of all stakeholder groups. Despite the fact that the objectives of the various stakeholder groups can be in conflict, stakeholders realise they need to work together to achieve the multiple goals of the organisation. The wealth that is created should not necessarily be distributed only to the shareholders. Other parties with legitimate claims can also share in the distribution process (Ameels *et al.*, 2002:11).

To have a VBM system that encourages management to maximise shareholder wealth does not have to be in conflict with the stakeholder approach, if the value management process is combined with the "socially responsible business behaviour" (Ameels *et al.*, 2002:11).

Value creation is simply the result of marrying opportunity and execution (Martin & Petty, 2000:4). For organisations this means that value is created through the operating and investment decisions the company makes (Knight, 1998:7). Shareholder value is created where the returns of operating and investment decisions are greater than the cost of capital (Martin & Petty, 2000:3).

It is therefore a paramount objective of management and the organisation to ensure the efficient uses of resources that will provide an economic return greater than the cost of capital of an organisation (Ameels *et al.*, 2002:11). Value is a subjective statement of beliefs about the future and represents a perception about the prospects of a company (Knight, 1998:34). The market price of shares is therefore a perceived value of the prospects of a company. This is the value that satisfies the shareholders.

The value that is associated depends on the viewpoint of the specific stakeholder. Each stakeholder within the organisation has a different perspective on value. Customers perceive value as the difference in the value of satisfaction from using a product or service against the price they pay. There is also the value an organisation contributes to the larger community. There are two groups of value perspectives: financial value perspectives and non-financial value perspectives. Financial values can be measured in monetary terms, for example the perceived value shareholders attach to the organisation reflected by the market price of shares. Non-financial value perspectives are the value a customer attaches to a product or service. The satisfaction (value) customers obtain by listening to music cannot be measured in financial terms. In this dissertation the focus will be on the value shareholders attach to an organisation and the various methods how to measure and maximise value for shareholders.

There are various factors that will contribute to value perspectives (Knight, 1998:25). They are:

- Quality of information – this is one of the most important factors in determining value. Information about the past is objective, whilst information about the future is subjective. Information is also not readily available to all parties. Therefore every individual will have a different perspective on value.

- Perception of control – the perception of control that individuals believe they have over a specific outcome will influence their perception of potential value. The higher the perception of control, the higher the perception of value.
- Time horizon – investors that have a time horizon of only one year will have a different perception of value than investors with a time horizon of ten years.
- Level of uncertainty – future values are based on levels of uncertainty. The higher the level of uncertainty the greater the variance in potential value.
- Risk tolerance – investors can have exactly the same perception on time, uncertainty, etc. Their perception of value can be different because of their tolerance for risk.

The value perspective for shareholders is not only determined by the financial performance of an organisation. Various other indicators, like market share and customer satisfaction also influence the perceived value. The question arises if there is a link between the financial performance of an organisation and other indicators of performance. Companies with a solid financial performance also do well on key non-financial indicators (Young & O'Byrne, 2001:17). This is not surprising. The value perspective incorporates all information regarding the organisation. This includes information on (Young & O'Byrne, 2001:17):

- Sales and Market Share growth.
- Customer satisfaction.
- Product liability.
- Supplier relationships.
- Labour productivity.
- Labour relationships.
- Regulatory and judicial requirements and impacts.
- Interest and capital repayment to lenders.
- Return on investment capital.

Shareholders are the last in the process to receive value or returns from the investment. This is the reason why all of these indicators and even more are incorporated into the shareholder value framework (Young & O'Byrne, 2001:18).

2.3.1 Shareholder Value

The total economic value of an entity, such as a company or business unit, is the sum of the value of its debt and its equity. The value of the business is called the "corporate value" and the value of the equity portion is called "shareholder value". Debt value includes the market value of debt, unfunded pension liabilities, and the market value of other claims such as preferred stock (Rappaport, 1998:32).

According to Rappaport (1998:33) corporate value is the sum of:

- The present value of cash flows from the business operations during the forecast period,
- The "residual value" is the present value of the business operations during the periods beyond the forecast period, and
- The present value of all other investments that can be converted to cash and marketable securities that is not essential to the normal business operations.

Shareholder value (the value of equity) is the difference between the corporate value (as calculated above) and the debt value of the organisation. Managers enhance the value of the organisation through increasing the corporate value relative to the cost of capital at their disposal (Ameels *et al.*, 2002:12). To enhance value for shareholders, managers need to understand the impact of financing decisions on the cost of capital for an organisation. The cost of capital is the minimum rate of return that investors require from organisations for the use of their capital (Madden, 1999:345). This is the reason why cost of capital is used as the discounting rate in calculating the present value of future cash flows for investment decision-making. The cost of capital includes the cost of equity capital and the cost of debt capital. The weighted average cost of capital (WACC) method weighs the cost of equity and the cost of long-term debt proportioned to the contribution of each component to the capital pool and its associated cost. The cost of debt is the contracted interest rate agreed with the lenders taking into account the deductibility of this for tax purposes. The cost of equity can be derived from the dividend valuation model that takes into account the expected growth rate in dividends (refer paragraph 2.6.1 on page 49).

2.4 Traditional Accounting vs. Value Metric Framework

The fundamental objective of an organisation is to maximise shareholder value. Value is created for shareholders through the dividends they receive and the appreciation in the share price.

The question arises if traditional accounting is consistent in reflecting the creation of value for shareholders. This also raises the question if measures, such as earnings per share (EPS) and return on investment (ROI), that are associated with traditional accounting, consistently reflect value creation that can be used as input into the strategy formulation and performance measurement processes.

Studies at SCA (2004) have shown that the traditional accounting system lacks in reflecting the business reality properly. It also lacks in the provision of indicative information on the true profitability or value creation of the company.

With the current continuous focus on value creation, traditional accounting measures are no longer sufficient.

Rappaport (1998:14) believes that traditional earnings fail as measurement tool to support the shareholder value maximisation objective. The reasons are:

- Alternative accounting methods – methods such as LIFO (last-in-first out) vs. FIFO (first-in-first-out) are both acceptable accounting methods. These examples of methods used as accounting principles, whilst whichever method is used, will have no impact on the cash flow of the organisation. Including in these methods are different depreciation methods.
- Investment requirements are excluded – the investments into working capital and fixed capital, required to sustain the firm, are excluded in the calculations of earnings for the organisation.
- Time-value of money – the growth in earnings does not necessarily means that the company has grown. It is common knowledge that R1 received today has a higher value than R1 received in a year's time.

Martin and Petty (2000:36) categorised the shortcomings of GAAP (General Accepting Accounting Principles) based on measures in 5 groups. They are:

- Accounting-based measures do not equal cash flow – cash is the cornerstone for most value-based measures. Accounting-based measures do not reflect whether cash has been generated in an organisation.
- Risk is not reflected within accounting numbers – accounting numbers reflected what happened and not what might have happened. Accounting numbers do not reflect the risk that has been taken. Risk is a primary driver of value and accounting-based information ignores risk.
- The opportunity cost of equity is not reflected in accounting numbers – accounting numbers do not take into account the rate of return required by investors. Equity capital is not free and comes at a cost. Accounting numbers therefore overstate the real value that has been created.
- Accounting policies differ between organisations – changes in accounting policy can have a huge impact on the accounting numbers reported. Differences on the depreciation of assets, research and development costs and inventory accounting (LIFO vs. FIFO) create differences in the numbers that organisations report on.
- Accounting numbers ignore time value of money – the rate of return required by investors takes into account inflation that impacts the time value of money. Accounting numbers do not incorporate this.

In a changing world it is even more crucial to understand the value drivers of the organisation. Ameels *et al.* (2002:4) said that management accounting has been in the last decade under increased pressure to adopt new approaches that would combat changes in the economic environment and to rectify perceived shortcomings in existing controlling structures. In an interview with Robert Herz he commented that proper information on intangible assets and non-financial indicators of future financial success are missing from traditional financial reporting (McCarthy, 2005:1).

According to Martin and Petty (2000:7) are the accounting model and the discounted cash-flow model two competing valuation paradigms to measure shareholder value. Table 2.1 on page 34 highlights the essential elements of each model:

Table 2.1: Competing Models of Equity Valuation

	Accounting model	Discounted cash-flow model
Equity value	Price/Earnings ratio x Earnings per share	Present value of future cash flows
Value drivers	Determinants of accounting earnings and the price/earnings ratio	Determinants of firm future cash flows and the opportunity cost of capital

(Source: Martin & Petty, 2000:7)

If the price/earnings ratio is 10, a R1 increase in earnings per share will equate to a R10 increase in additional equity value. The opposite is that if the earnings per share drop by R1, the equity value would have dropped by R10. If a manager invests R1 in research and development the return will only realise in additional profit in the following years. In the accounting model, the value of the equity will drop by R10. The DCF-method will take into account the outflow of cash initially and the future returns that will realise. If a manager is measured based on the accounting model paradigm, the wrong decision will be made and this will be a typical example of conflict between the goals of the manager and the goals of the shareholders or the agency theory.

Maximising earnings do not always maximise shareholder value, whilst DCF-methods show the present value of future cash flows. VBM tries to address these problems by using DCF-methods as basis for performance measures.

Deregulated capital markets force organisations for continuous increased profits. Large companies therefore have to adopt new measurement metrics to track the success of management in increasing shareholder value and to motivate employees to ensure congruence between their work and the overarching goal of increasing value (Young & O'Byrne, 2001:5).

According to Knight (1998:187), the primary job of financial reporting is to capture the company's financial results, whilst the primary job of managerial reporting is to provide operating management with the information they need to make informed decisions.

There are a number of shortcomings in accounting-based measures. Alternative accounting principles can be used. There are differences in the methods used for depreciation, LIFO vs. FIFO, etc. Risk is also excluded, investment requirements are excluded, dividend policy is not considered and the time value of money is ignored (Mabberley, 1998:14).

The question arises if this means that there is no role for traditional accounting within the business environment? Definitely not, traditional accounting is far from dead and buried, it has become a narrow slice of the information used by business people to make decisions (Saluzzi, 2000). According to Saluzzi there is an increasing number of leading edge-companies from all parts of the world and industry sectors that adopts new reporting concepts and practices that reflect a comprehensive value-reporting program.

The resurgence of investor power and the new paradigm to maximise shareholder value as the primary objective of management, requires management accounting to adopt and invent new ways to support management and other stakeholders within the organisation with information that will enable them to make the right decisions. VBM is such a concept that focuses on ways to create and measure value creation within the firm.

Research done by Brown *et al.* (2000:2) highlight that the information required for the decision-making process is changing from financial-based measures to qualitative-based input measures. This is changing the role of the management accountant within the organisation radically.

2.5 Value-Based Management

A large number of companies are proclaiming their commitment to create sustainable long-term value for their shareholders. On a regular basis, articles with headings such as: "*Managing for Value: It's not just about the numbers*", "*Maximising Shareholder Value: Achieving clarity in decision-making*", "*Leading for Value*", etc., are publicised providing information that range from case studies of VBM implementations, the types of VBM metrics that should be used or what VBM is all about (Haspeslagh *et al.*, 2001:62; Starovic *et al.*, 2004:1).

According to Chopp and Paglia (2002:1) began VBM with a breakthrough performance metric, and during the past twenty years have VBM matured into a management framework that focuses companies on the creation of shareholder wealth. According to Haspeslagh *et al.* (2000:2) stemmed VBM from the financial theory that a business creates value when the returns are greater than the cost of capital. Thus, a better measure of profitability for a business is the profit realised after a deduction to account for the cost of capital used to generate the income; this is also known as economic profit.

This also resulted in a seemingly disparity of agreement by the proponents of VBM on what VBM is about. Starovic *et al.* (2004:3) mentioned that to define VBM is not easy. On the one hand there are those proponents that define VBM in the broad context of creating shareholder value, whilst other narrow the definition to a single metric. By analysing these seemingly disparate definitions, one comes to the conclusion that they all contribute to an overall description of VBM. The difference between the definitions is the perspective the proponent defines VBM from. These perspectives can be grouped into four categories; each category will be discussed in paragraphs 2.5.1 – 2.5.4 on pages 36 - 39 with a conclusion in paragraph 2.5.5 on page 40:

- The VBM core principle – hereby we find VBM defined by the use of specific methodologies.
- The VBM reasoning – VBM is defined by a specific reasoning why companies would embark on such an initiative.
- The VBM Process – a process of impact is described of a VBM initiative. This also links to an organisational-wide initiative.
- The VBM features – these proponents defined VBM through identifying the distinct features of VBM.

These definitions also support each other in highlighting the overall characteristics in the various components.

2.5.1 Value-Based Management: The Core Principles

There are those proponents that define VBM by defining the core principle of VBM. Martin and Petty (2000:47) stated that the underlying principle of VBM is the discounted cash-flow model. Brigham and Daves (2002:350) support the view of Martin and Petty that the free-cash flows discounted to the present value at the

weighted average cost of capital (WACC) lies at the heart of VBM. BSW (2002:1) states that VBM assesses value creation by the true cash flows over time.

The proponents of VBM believe that the limitation in traditional accounting policies does not reflect the true value creation within an organisation. To maximise earnings does not necessarily maximise shareholder value. That is why the proponents of VBM prefer the use of discounted cash flow methods to rectify the shortcomings within the accounting principles. According to Ballow *et al.* (2004:2) have they found that to boost earnings per share, a traditional accounting tool, can have little impact or even a negative impact on value creation.

The various VBM metrics that are proposed by the business all propose to adjust accounting numbers one way or another to reflect true cash flow, cost of equity and the time value of money. From above a summary of the core principles of VBM are:

- Cash flow;
- Discounting future cash flows to the present value; and
- The discount rate is the WACC of the organisation.

2.5.2 Value-Based Management: The Overarching Reason

There are those proponents that define VBM by stating the overarching reason why companies and management should focus on VBM: creating shareholder wealth. The overarching reason stems from the book of Alfred Rappaport: *Creating Shareholder Value*.

De Jonge (2005a) believes that VBM is a philosophy that enables and supports the creation of maximum value within an organisation. Young (1999:1) defines VBM as a management approach where the primary goal of the organisation is the maximisation of long-term sustainable shareholder value. VBM is the saviour in the battle to create shareholder value (Haspeslagh *et al.*, 2000:1).

According to Lindström (2001) the aim of VBM is to systematically change the focus of management on the true value drivers and eliminate accounting biases. Bromwich (1998:387) stated that value-added approaches provide an overarching top-level corporate-wide financial management system.

According to Knight (1998:102) is value management not a once-off exercise happening only once a year. It is a continuous process of investing and operating decision-making that includes a focus on value creation. VBM instils with every individual in the organisation to prioritise decisions based on how value is created for the organisation. The various consultancies all agree that the focus of VBM is to maximise shareholder value (Ameels *et al.*, 2002:3).

VBM's roots stem from the notion that the primary goal of an organisation is to create value for its shareholders. Various techniques and frameworks have been developed over the years with the one key objective: to create shareholder wealth.

2.5.3 Value-Based Management: The Process

Martin and Petty (2000:xiii) believe a VBM system constitutes of a measurement and reward system designed to encourage employees to focus their activities on the creation of shareholder value. VBM is a synthesis of multiple business disciplines and subjects.

Chopp and Paglia (2002:2) believe that VBM aligns the key organisational processes (strategic planning, budgeting, compensation, performance measurement, training, and communication) around the creation of value for shareholders. This alignment is required by the organisation to ensure that there is alignment and consistency with all individuals, at all levels, to make decisions that will focus on long-term sustainable value creation.

Harris (2002:1) defines VBM as a framework. The framework integrates the decision-making and behavioural processes of an organisation. The framework guides these processes to the goal of creating shareholder value. According to Harris the framework includes the following distinct elements:

- Business planning – a planning process to evaluate the alternative decisions in terms of strategy, investments and human capital to ensure that maximum value is gained to create shareholder value.
- Target setting – to ensure that there are targets set at the required levels that will steer the organisation to create value.
- Reporting and feedback – provide regular feedback at all organisational levels.

- Rewards – reward managers and employees for long-term sustainable value creation.

Starovic *et al.* (2004:2) defines VBM as a managerial process that links strategy, measurement and operational processes effectively to the goals of creating shareholder value. According to Ameels *et al.* (2002:5) VBM is a managerial control system that measures and encourages the creation of value.

Mabberley (1998:5) says VBM is a term to link shareholder value to the management of value within the organisation on a day-to-day basis. Mabberley believes VBM builds further on the value chain. It obtains congruence between the organisation's strategy and those of the individual managers by linking performance measurement to resource management.

The overarching goal of VBM is to create shareholder wealth. Pettit (1999:59) noted that the VBM metrics need to be coupled with management processes to ensure that there is a powerful change, if not the goal of value creation would not be achieved.

From a managerial perspective, VBM needs to have an impact on the various managerial processes to instil a change within the organisation so that all management processes are focused on value creation. VBM is therefore a framework that incorporates all of the management processes: planning, targets, reporting and rewarding to create value for shareholders. It should be noted that whatever goal an organisation chooses as its primary objective, would result in the development of a framework that would automatically include the various managerial processes. The VBM framework is not unique in incorporating these processes, but unique in the sense that it incorporate these processes to be focused on the single goal of maximising shareholder wealth.

2.5.4 Value-Based Management: The Components

Some proponents of VBM identified distinct elements of VBM. De Jonge (2005a) says that the elements of VBM are the following:

- *Creating value* - ways to actually increase or generate maximum future value ≈ strategy.

- *Managing for value* - management, organisation, culture, government, communication
- *Measuring value* - valuation.

According to Ameels *et al.* (2002:8) there are three distinct general features of VBM:

- *Management* – it is a managerial tool used by management to assist in decision-making.
- *Approach* – VBM is a prescribed set of activities that propagates its values all over the organisation.
- *Maximising shareholder value* – the purpose is to generate as much net worth as possible.

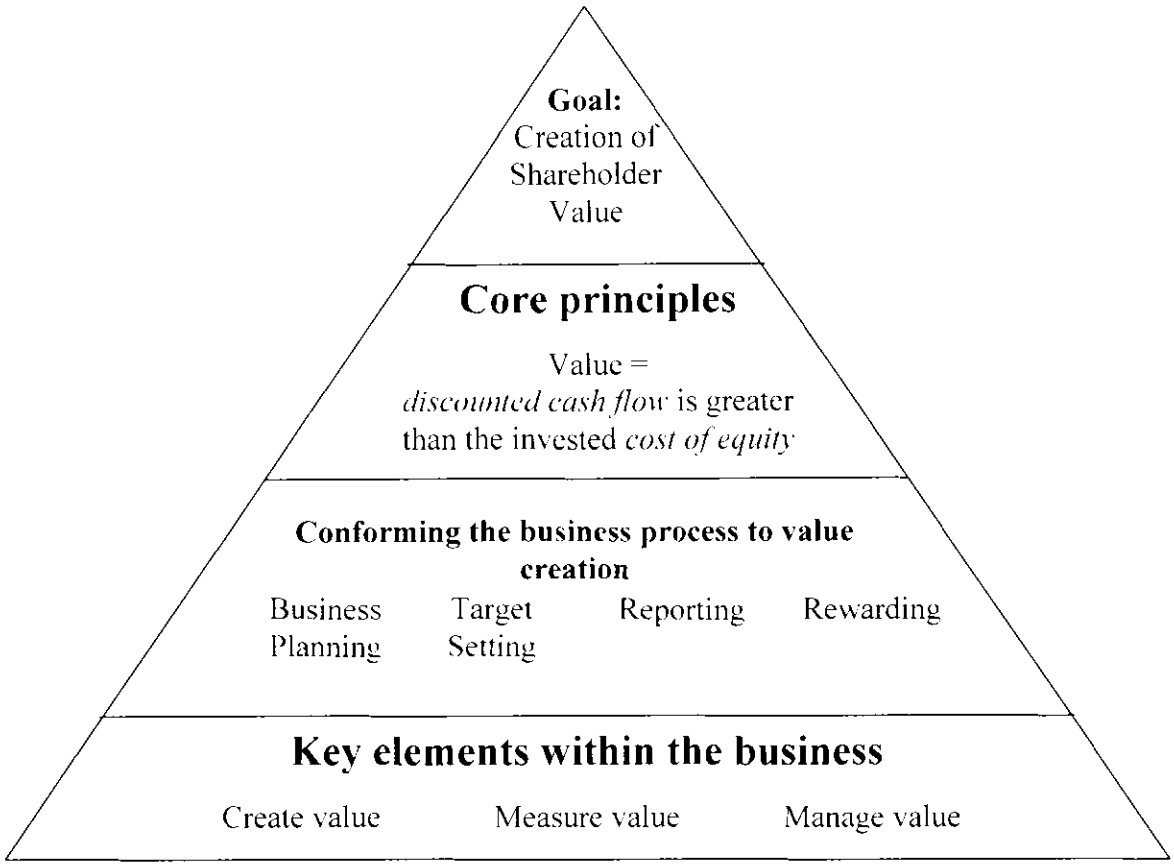
The Cadbury Schweppes Managing for Value program defines VBM as the process that implements the VBM principles, framework and tools across the organisation (Haspeslagh *et al.*, 2000:6).

The distinct element of VBM is to create value for shareholders. Management therefore concentrates on various ways to create, manage and measure value creation within the organisation. VBM is not only a managerial tool for management, but set value creating principles across the organisation.

2.5.5 Conclusion on Definitions

To gain an understanding of VBM and its impact on the business, the various definitions need to be seen in conjunction. They are all mutually inclusive. Diagram 2.1 on page 41 provides an overall summary of VBM:

Diagram 2.1: Value-Based Management Definition Diagram



(Source: Own research)

The goal of VBM is to maximise shareholder wealth. Organisations therefore need to ensure that all processes and people within the organisation are focused on creating value for the shareholder. VBM is a managerial framework that links strategy, measurement and operational processes by ensuring that there is goal congruence – the creation of shareholder value. It therefore ensures and encourages all levels in the organisation to change their mindsets to focus on value creation. Value is created for shareholder when the discounted cash value to the present value is greater than the cost of invested equity. Various metrics have been developed to measure the value creation process within the organisation. Discounted cash flow lies at the heart of these metrics.

The metrics therefore have the following distinct features:

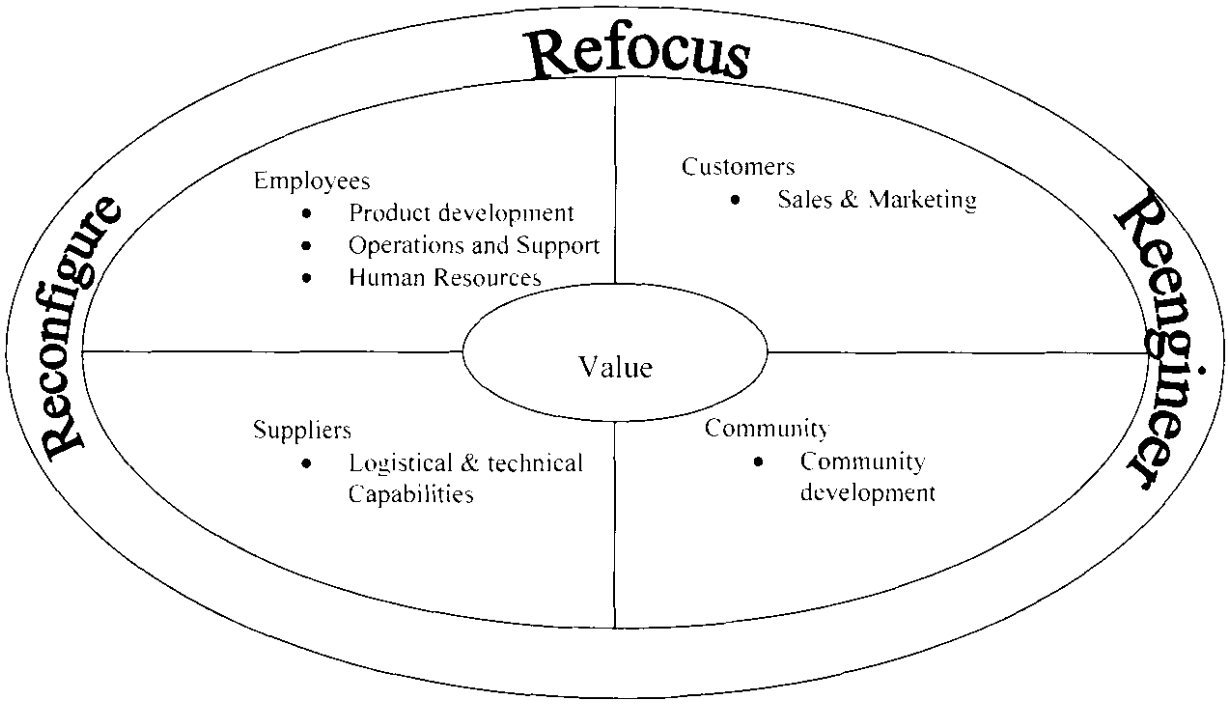
- Cash flow analysis.
- Adjusting for the time value of money.
- The inclusion of cost of capital; risk is therefore accounted for within the metric.

The uniqueness of VBM is the overall goal of creating shareholder wealth, thus putting shareholder value first within the organisation. Whatever goal is chosen within the organisation, the framework associated with the goal is supposed to gear all activities and processes to achieve the goal. The success of VBM is not the reason that all activities and business processes are focused on one goal, being goal congruence, but that these activities are centred on the goal of shareholder value creation. It is after all the shareholders that own the company.

2.5.6 The Value-Based Management System

Just as many definitions there are for VBM, so many proposed VBM systems are presented within the various books to depict how VBM should be integrated and structured within the organisation. Stern and Shiely (2001:55) presented a holistic value creation model that has been devised from the Briggs and Stratton Model:

Diagram 2.2: Holistic Value Creation



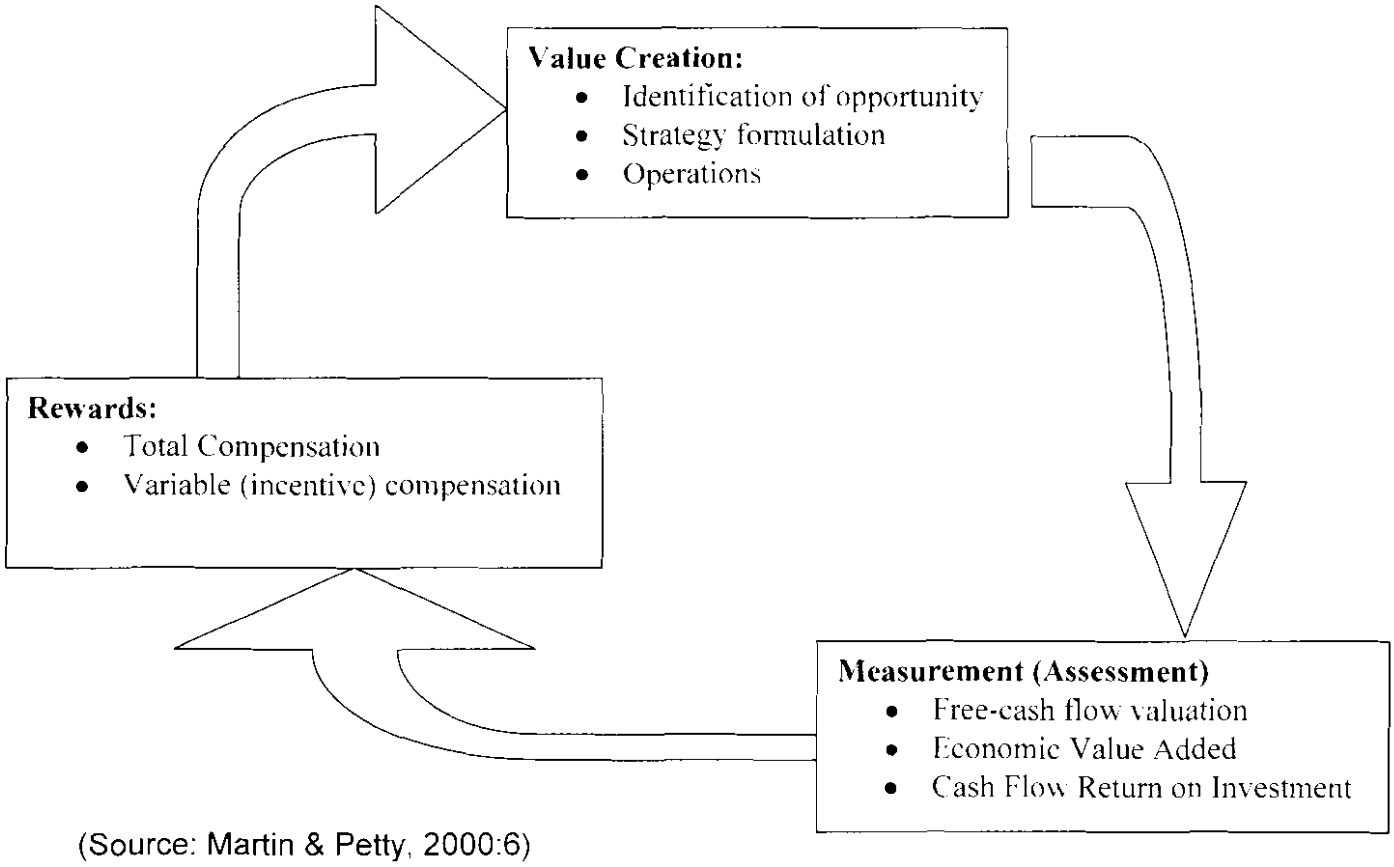
(Source: Stern & Shiely, 2001:55)

According to Stern and Shiely (2001:55) a firm will achieve the best value for shareholders, when the managers of the organisation and everybody within the organisation, are dedicated to create value for the organisation by creating value within the various relationships of the organisation. There are four main relationship groupings for an organisation. There is the relationship with employees. The most

important functions integrating the employees into the value creation process are product development, operations and support, and human resources. The challenge for management is to create an environment whereby employees will see it as beneficial for them to focus on value creation. The creation of value within the relationship with customers is the sales and marketing function. The creation of value for the organisation with its suppliers is through the logistical and technical capabilities function, and to create value through its relationship with the community is through community development (Stern & Shiely, 2001:56).

Martin and Petty (2000:6) define the VBM System as:

Diagram 2.3: VBM System



(Source: Martin & Petty, 2000:6)

The key elements of a VBM system are value creation, measurement and rewards. Diagram 2.3 above highlights that value is created over time through a continuous cycle of strategic and operating decision-making. This ensures that sustainable value is created for the organisation. To achieve this it is critical that managerial performance must be measured using metrics that can be directly linked to

shareholder value creation. Therefore the marrying of the metrics and incentives lies at the centre of a VBM system (Martin & Petty, 2000:6).

Young and O'Byrne (2001:18) recommended that a comprehensive VBM program would consider the following components:

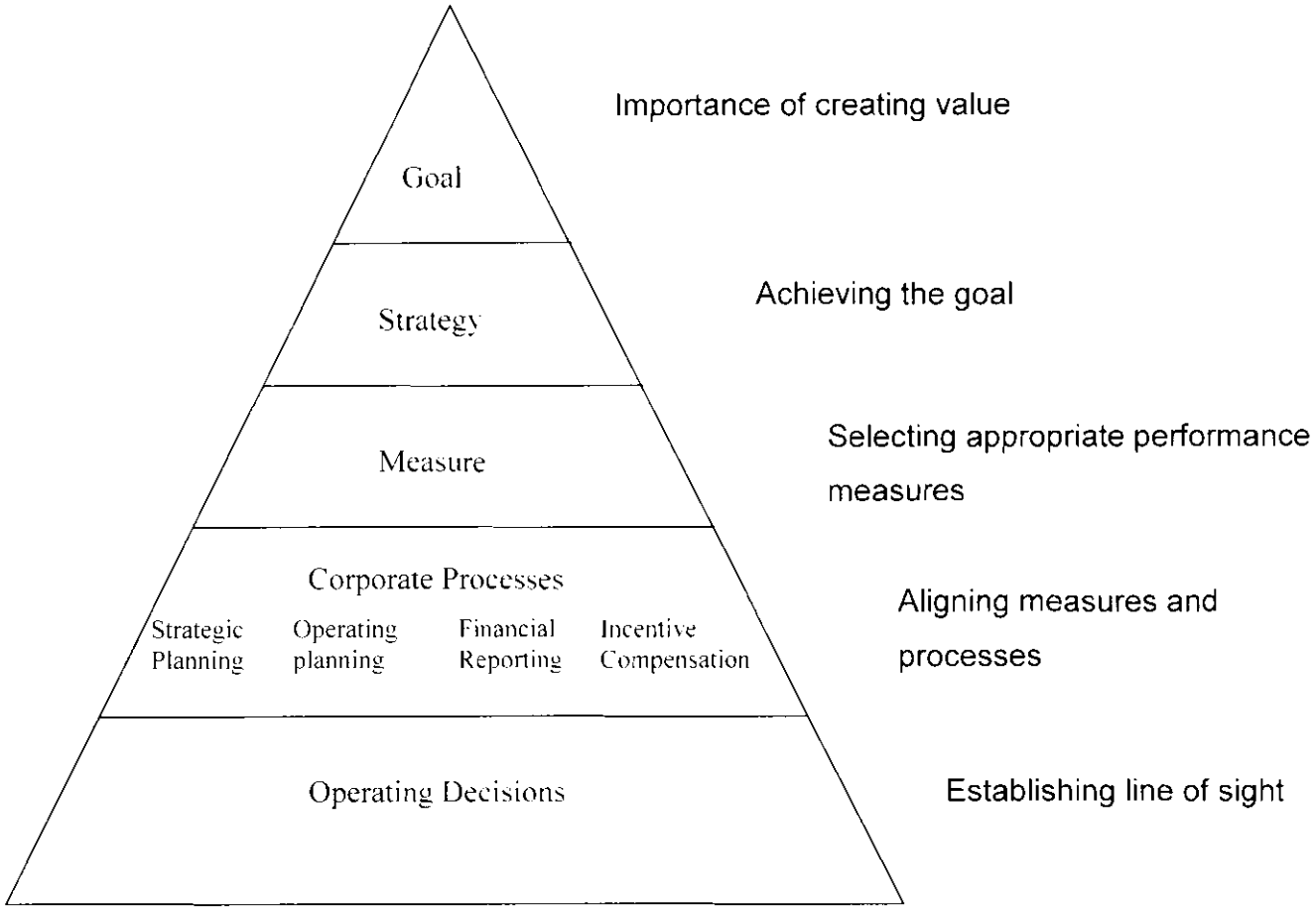
- Strategic Planning.
- Capital Allocation.
- Operating Budgets.
- Performance Measurement.
- Management Compensation.
- Internal Communication.
- External Communication.

De Jonge (2005a) believes that the aim of VBM is to provide consistency of the following where the overall corporate purpose and value are to maximise shareholder value:

- The corporate mission or business philosophy.
- The corporate strategy to achieve the mission.
- Corporate governance.
- Corporate culture.
- Corporate communication.
- Organisation of the corporation.
- Decision processes and systems.
- Performance management processes and systems.
- Reward processes and systems.

According to Knight (1998:3), the VBM system can be divided into 5 categories, namely goal, strategy, measures, processes and decisions. Diagram 2.4 on page 45 represents the 5 categories:

Diagram 2.4: Categories of the VBM System



(Source: Knight, 1998:3)

Each of the categories (Goal, Strategy, Measure, Corporate Processes and Operating Decisions) follows from the one above (refer to diagram 2.4 above). If an organisation decides that its goal is value creation, the strategy therefore needs to set out how to achieve the goal of value creation. The performance measures or metrics an organisation choose, need to be aligned and reinforce the strategy of the organisation. The performance measure should aid management to make the right decisions. If value creation is the goal, then the performance measures need to reflect this, it needs to capture the results of the strategy. The four key management processes are strategic planning, budgeting, incentive compensation and financial reporting. These processes need to provide clear guidance to management what to do to continuously create value for the business. Therefore the management processes need to be aligned. By choosing to manage for value, these processes will be aligned achieving goal congruence. Through the operating decisions that management make, value is

created. Management needs to ensure the decisions they make supports their goal of value creation (Knight, 1998:3-8).

VBM is not a silver bullet that will solve all the organisational problems. Knight (1998:291) clearly highlighted that Value Management is not a crystal ball. It is not a replacement for managerial judgement. The measure itself is only as good as the information it is based on. The process is as good as the people that are involved. What you measure is what you will get. To achieve the maximum value of VBM, organisations need to think how VBM will fit into the existing corporate processes and activities. From above, it can be concluded that, if the aim of VBM is to direct all activities to create value, the VBM framework needs to consider the following:

- Goal and strategy – the creation of shareholder wealth is the overall goal, this will impact the strategy of the organisation on how the goal will be achieved.
- Measure – to measure value an organisation must choose an appropriate measure that would meet the needs of the organisation. The metric chosen should reinforce the strategy of the organisation.
- Corporate processes – within the corporate management processes management must have an indication of how to create, manage and measure value creation within the organisation.
- Operations – the VBM framework needs to take into account the various operations and decisions taken at this level. Employees need to instil VBM as part of their day-to-day operations.

2.5.7 Value-Based Management and the Consulting Firms

Over the last two decades business were introduced to various new tools and techniques to assist in measuring corporate performance. A common element that distinguishes the later management tools from the earlier ones, is that they predominantly emerged from practice and consultants (Bromwich, 1998:387).

VBM is a framework where various acronyms and metrics are proposed as business solution. This includes economic value added (EVA), cash flow return on investment (CFROI), shareholder value added (SVA), and market value added (MVA), etc. Haspeslagh *et al.* (2000:2) believes that most of these metrics stemmed of the original economic profit theory, where the true measure of the profitability for an organisation, is the profit after a deduction for the cost of capital utilized (Ameels *et al.*, 2002:12).

VBM is a modern topic that is supported by various consultancies. All of them developed their own approach and measurement metrics to support the business in the quest for shareholder value. The aggressive competition between the consultancies to win over VBM business from corporate executives has been dubbed as the "Metric Wars" (Young & O'Byrne, 2001:381). Each firm promotes its own metric, where some of these are only variants of each other.

According to Martin and Petty (2000:xiv) there are three principal metrics used for VBM. These three principal methods have each been supported and promoted by one or two consultancies. They are:

- The free-cash flow method as proposed in various formats by McKinsey & Co. and LEK/Alcar.
- The EVA and MVA methods trademarked by Stern Stewart and Co.
- The CFROI-method supported by Boston Consulting Group (BCG) and HOLT Value Associates.

Martin and Petty (2000:51) stated that all of the methods stemmed from the basic notion:

Firm value = Present value of a company's future free-cash flows

Ameels *et al.* (2002:24) did a detailed study of the approaches and metrics proposed by the various consultancies. Ameels analysed the approaches of the following consultancies:

- Stern Stewart & Co. – the development of the EVA management framework that resulted in the registered trademarks EVA and MVA metrics are their best-known assets.
- Marakon Associates – they have developed the equity-spread metric that compares return on equity (ROE) against the cost of equity (k_e).
- McKinsey & Co – focus on more general strategic issues. Their ideas are more around valuation and they pay a lot of attention to valuation metrics and the discounted cash flow methods in particular.
- PriceWaterhouseCoopers (PWC) – they are active in the field of planning and large-scale change projects through the use of VBM for instance.

- LEK/Alcar Consulting – Alfred Rappaport who wrote the book, *Creating Shareholder Value*, and also founder of the shareholder value added (SVA) metric is a strategic advisor to this consulting firm, especially concerning the application of shareholder value to business strategy.
- HOLT/BCG – HOLT Consulting in co-operation with BCG developed the CFROI metric.

Ameels *et al.* (2002:3) highlighted that the similarities between the methods and approaches of the consultancies are the following:

- There is clear unanimity to maximise shareholder value. They agree that this is the paramount performance objective.
- The interests of all stakeholder groups are best met when putting the shareholder first.
- There is agreement of the impact that VBM has on collaboration.

According to Ameels *et al.* (2002:3) the differences are between the approaches and methods of the various consultancies:

- They all suggest different types of measures.
- They combine different systems and processes.
- They differ on their views on strategy development.
- They advocate their own training and education programs for VBM.

According to Young and O'Byrne (2001:381) are the two most formidable competitors within the metric war CFROI from Holt/BCG and EVA from Stern Stewart & Co. According to Starovic *et al.* (2004:10) are the most significant metrics the following:

- Shareholder value analysis (SVA).
- Economic profit (EP) and economic value added (EVA).
- Cash flow return on investment (CFROI).
- Total business return (TBR).

2.6 Value-Based Management Metrics

The principle that value creation depends on discounted cash flow concepts are one of the cornerstones on which VBM relies. Over the last couple of years, various new methods of VBM were added for measuring corporate value. These methods are proposed as solutions for measuring corporate and divisional performance. The measures are generally based on comparisons between corporate market value, corporate accounting book value and the residual income (Bromwich & Walker, 1998:391). According to Brown *et al.* (2000:2) the success of these measures can be gauged from the number of consulting firms offering their own system of shareholder value measures.

Knight (1998:102) stresses that to manage for value, basically means to use the right combination of capital and other resources to generate cash flow from the business. This section will first investigate the background to the VBM metrics and thereafter discuss the most prominent VBM metrics.

2.6.1 Background to the Value-Based Management Metrics

Brigham and Daves (2002:350) stated that discounting free-cash flows to the present value at the weighted average cost of capital (WACC) of the company lies at the heart of VBM. In paragraph 2.5.5 on page 40 it was highlighted that the various metrics have the following distinct features:

- Cash flow analysis;
- Adjusting for the time value of money; and
- The inclusion of cost of capital; risk is therefore accounted for within the metric.

The net income reflected in the income statement of an organisation provides investors with limited knowledge of whether the organisation creates cash or not. Organisations must also invest in buildings, equipment and other resources. The cash that is available after the payment of cash expenses and operating investment required by the firm is known as the free-cash flow (De Jonge, 2003b). This is the cash that is available to the shareholders of the organisation.

Discounted cash flow is not a new concept. De Jonge (2003b) mentioned that Grant already in 1938 made reference to use time value of money for making decisions on investment projects. According to Johnson (2003:14) prospective shareholder value is best measured through the use of a discounted cash flow method.

To make investment decisions that would reap benefits over the long-term, investors base their decisions on three questions:

- What is the potential cash return earned on the investment over time?
- What is the value today of the future cash flows?
- What is the cost of risk associated with the investment?

(Pettit, 1999:60)

According to Young and O'Byrne (2001:22) are value a function of *magnitude*, *timing* and the *degree of uncertainty*. *Magnitude* refers to the size of the cash flow; the greater the better. This does not give us an indication of what it is worth today; therefore the *timing* gives an indication of what the cash flow is worth today. The earlier the return, the more valuable it is. Lastly, because this is expected future cash flow, there is risk associated with the investment. The higher the risk an investor takes, the greater the expectation of return. Therefore the *degree of uncertainty* regarding the expected cash flow will impact on the value. This is also referred to sometimes as the cost of capital.

The cost of capital is the minimum acceptable return on an investment (De Jonge, 2005b). The cost of capital is normally calculated as a hurdle rate in the investment or discounted cash flow analysis. The cost of capital represents the minimum rate of return an investor will expect taking into account the risk of the investment.

Formula 2.1: Discounted Cash Flow

$$\text{Value} = \sum_{t=1}^{t=n} \frac{CF_t}{(1 + r)^t}$$

Where:

n = economic life of the investment

t = period

r = the discount rate that reflects the degree of uncertainty

CF = the expected cash flow for a specific period t

(Source: Young & O'Byrne, 2001:23; Investopedia.com, 2005a; Madden, 1999:66)

There are a number of ways, some are very complex, to calculate the minimum rate of return. One of the most prominent or used methods is the weighted average cost of capital method or WACC.

The WACC-method calculates the weighted cost of capital of the organisation by calculating the cost of market valuations, current yields and cost after tax and weighting these costs according to the contribution to the capital source pool (BPP, 2001:139).

Formula 2.2: Weighted Average Cost of Capital

$$k_0 = k_{eg} \frac{V_E}{V_E + V_D} + k_d \frac{V_E}{V_E + V_D}$$

Where:

k_0 = Weighted average cost of capital (WACC)

k_{eg} = The cost of equity

k_d = The cost of debt

V_E = The market value of equity in the firm

V_D = The market value of debt in the firm

(Source: Young & O'Byrne, 2001:163; Martin & Petty, 2000:65; Rappaport, 1998:37; Young, 1999:1)

According to BPP (2001:142) there are three elements that influence the cost of capital:

- The risk-free rate of return – this is the return that would realise if there were no risk involved in the investment, e.g. government bonds.
- Premium for business risk – this is the additional risk to the investment due to the existence of uncertainty about the future and the firm's business prospects. Therefore certain industries will generally have higher risk involved than others,

and also within an industry there can be differences in the risk premium between businesses.

- Premium for financial risk – if an organisation has high debt levels, there is a risk for ordinary shareholders. The greater the gearing of the organisation's capital structure, the greater the risk to ordinary shareholders.

Over the last decade various measures have been proposed and adopted by companies that all have linkages to shareholder value. These models are not really new and they can be traced back to a metric used by General Electric in the 1950's called "residual income" (Rappaport, 1998:21; Starovic *et al.*, 2004:4). Ameels *et al.* (2002:15) noted that various authors have stated that residual income can be considered the basis of many value-based metrics. According to Young and O'Byrne (2001:437) are residual income the standard term used for profit metric that includes a charge for the use of capital. Young and O'Byrne (2001:437) believe that economic profit, EVA and CVA are all residual income measures.

Residual income is the accounting income attributable to shareholders at the end of the period less the accounting book value of shareholder funds at the end of the previous period multiplied by the cost of capital. It provides a clear indication when a firm has made enough profit to satisfy both creditors and equity holders. (Ameels *et al.*, 2002:15; Bromwich & Walker, 1998:391).

Residual income is known in three basic versions today (Martin & Petty, 2000:51; Rappaport, 1998:121):

- The traditional General Electric versions, known as residual income;
- The Stern Stewart trademark economic value added (EVA) variant; and
- The change in residual income.

As mentioned, there are numerous value-based metrics proposed. The most well-known are (Starovic *et al.*, 2004:10):

- Economic value added (EVA) and economic profit (EP).
- Cash flow return on investment (CFROI).
- Shareholder value added (SVA).
- Cash value added (CVA).
- Total shareholder return (TSR) and total business return (TBR).

2.6.2 Economic Value Added (EVA) and Economic Profit (EP)

Economic value added (EVA) is a value-based metric that has been trademarked by Stern Stewart & Company. EVA is according to Ameels *et al.* (2002:15) the most straightforward descendant of residual income. Brown *et al.* (2000:3) mentioned that EVA is considered to be the best known of all the shareholder value metrics. According to Starovic *et al.* (2004:12) is EVA a refined version of the EP approach. Economic profit is also known as residual income (Starovic *et al.*, 2004:11). As mentioned in the preceding section residual income is the accounting profits of an organisation less a charge for the capital utilised. EP can be calculated in two ways:

Formula 2.3: Economic Profit

A: EP = Invested Capital x (Return on capital – WACC)

or

B: EP = Operating profits after tax – capital charge

(Source: Starovic *et al.*, 2004:11; Martin & Petty, 2000:81)

The following mathematical explanation proves that the two formulas are the same:

EP = Invested Capital X (Return on Capital – WACC)

= (Invested Capital X Return on Capital) – Invested Capital X WACC)

$$= \left(\text{Invested Capital X } \frac{\text{Operating profits after tax}}{\text{Invested Capital}}\right)^{1} - \text{Capital Charge}^{2}$$

= Operating profits after tax – capital charge

Notes:

1: $ROC = \frac{\text{Operating profits after tax}}{\text{Invested Capital}}$

(Source: Martin & Petty, 2000:88)

2: Capital Charge = Invested capital x WACC

(Source: Starovic *et al.*, 2004:11)

In the first approach (A) EP represents the amount of capital invested within the business multiplied by the difference between the actual return on capital and the required return on capital being WACC (Starovic *et al.*, 2004:11). In the second approach the cost of invested capital (calculated by multiplying the invested capital with WACC) is subtracted from the operating profits after tax. Operating profits are profits before the deduction for non-operating items, such as interest receivable and payable and investment income (Starovic *et al.*, 2004:11).

The advantages to use EP, as a VBM metric, are the following (Starovic *et al.*, 2004:11):

- It is relatively straightforward to implement – it only requires two adjustments.
- EP can be used at business unit level.

A major disadvantage of EP is the fact that it is based on the traditional accounting numbers (Starovic *et al.*, 2004:11). The drawbacks of traditional accounting, as discussed in paragraph 2.4 on page 32 are applicable on EP. In paragraph 2.6.1 on page 49 it was noted that VBM metrics have the following distinct features:

- Cash flow analysis;
- Adjusting for the time value of money; and
- The inclusion of cost of capital; risk is therefore accounted for within the metric.

EP is not adjusted for cash and therefore cannot be viewed as a true VBM metric. The concept forms the basis of one of the most prominent metric - EVA.

EVA is based on EP. The difference is that within EVA, adjustments are made to the capital base or to the operating profits (Starovic *et al.*, 2004:12). The reason why adjustments are made is to ensure the capital base utilised is fully represented within the calculation (Brown *et al.*, 2000:3).

According to Starovic *et al.* (2004:12) there are three reasons why the adjustments are made to the EP numbers:

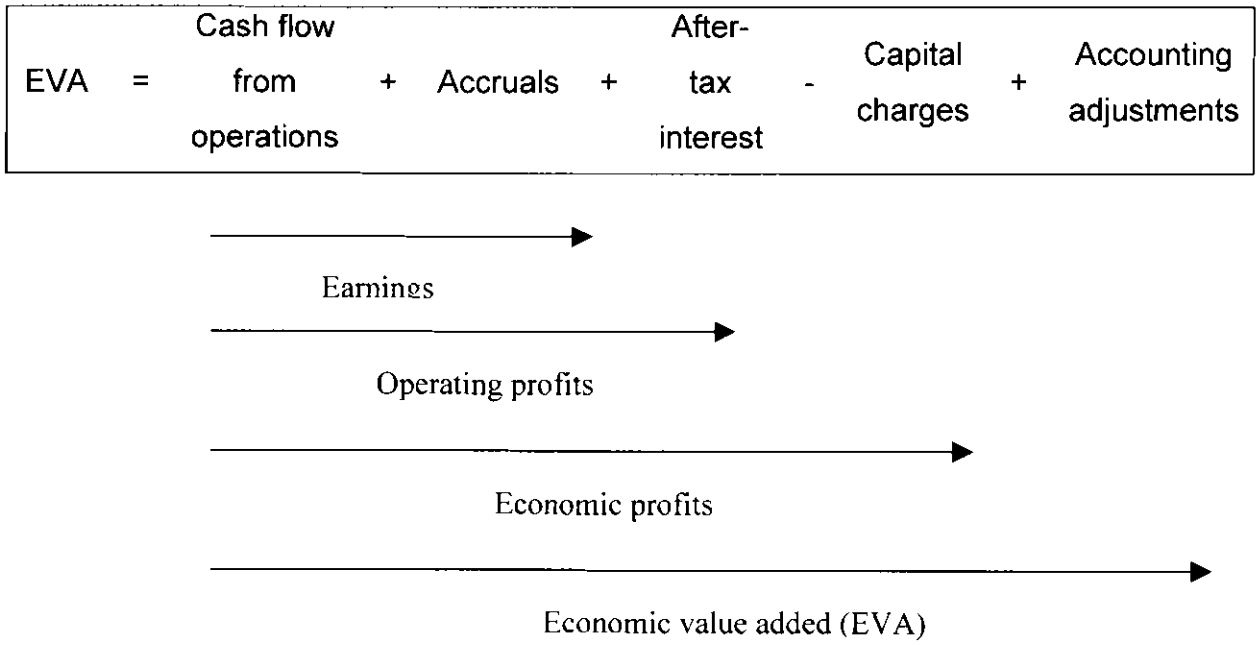
- Non-cash base bookkeeping (e.g. depreciation) that tends to distort the true "cash" profitability of the organisation.
- The fundamental accounting concept of prudence. This has the impact that there is a systematic conservative bias affecting the application of reporting numbers.

- A term referred to as "successful efforts accounting". Organisations write-off costs associated with unsuccessful investments. This write-off understates the "true" capital of the organisation and also has an impact on the reported profits with once-off gains or losses.

To overcome these, Stern Stewart has identified more than 150 possible adjustments that can be made to the accounting numbers (Young, 1999:3). Young also mentioned that most advocates of EVA would clearly say that it is not feasible to do all these adjustments; they should have a maximum of 15 adjustments.

The relation between EVA and financial measures can be depicted as follow:

Diagram 2.5: From Earnings to EVA



(Source: Martin & Petty, 2000:87)

Knight (1998:2) says EVA simply means thinking through how you will create value – it is not something new. EVA attempts to improve on traditional accounting measures, by measuring the economic profit of an organisation.

Formula 2.4: Economic Value Added

A: $EVA = NOPAT - (K_c * Capital)$

Where

NOPAT = Net Operating Profit After Tax = Sales – Operating Expenses (Incl Depreciation) – Taxes

OR

= Income available to common shareholders + increase in equity equivalents* + interest expenses after taxes + preferred dividends + minority interest provisions

(* Equity equivalents gross up the standard accounting into what G Stewart calls "economic book value". They eliminate accounting distortions by converting from accrual to cash accounting.)

Capital = Common equity + Equity equivalents + Debt + Preferred Stock + Minority Interest

or

= Adjusted current assets – Non bearing current liabilities + Net fixed assets

K_c = Cost of Capital

(Source: Ameels *et al.*, 2002:16; Martin & Petty, 2000:88; Starovic *et al.*, 2004:12)

EVA is also expressed alternatively as:

B: $EVA = (r - K_c) * Capital$

Where

r = The organisation's return on capital, r is calculate as:

$$r = \frac{NOPAT}{Capital}$$

(Source: Ameels *et al.*, 2002:16; Martin & Petty, 2000:88; Starovic *et al.*, 2004:12)

Some of the benefits (Ameels *et al.*, 2002:17) that both academics and practitioners highlight are:

- The metric is able to measure an annual actual non-estimated or forecasted value-created performance.
- It corresponds more closely to economic profit than accounting earnings do, and supports more the objective of shareholder value creation.
- It can also provide an incentive for managers to promote shareholder wealth as primary objective.

Starovic *et al.* (2004:12) noted that EVA possesses all of the advantages of EP, but addresses the weaknesses of the traditional accounting distortions within the calculation.

Martin and Petty (2000:105) state that EVA enables the organisation to focus on increasing value in three ways:

- To increase profits without tying up more capital within the organisation.
- Invest extra capital into the projects where the return is greater than the cost of obtaining extra capital.
- Liquidate capital or restrain from investing further capital into operations where the return is below the required rate of return.

According to Martin and Petty (2000:105) EVA can be used to determine the value of the organisation:

Value of the organisation = invested capital + present value of future EVA's.

According to Ameels *et al.* (2002:17) the implied effectiveness of EVA as a performance measure is based on the association of EVA and stock return ambiguous. Some research have indicated that there is correlation between EVA and stock price performance, whilst other reports point out that EVA does not dominate earnings in association with stock market returns.

Botten and Sims (2004:402) mentioned the following criticism of EVA:

- The adjustments can sometimes seem to be arbitrary; this creates latitude for window-dressing of the financial statements.

- It is affected by the organisation's absolute size, and it does not lend itself to compare different organisations across industries.

2.6.3 Cash Flow Return on Investment (CFROI)

Holt Associate developed the CFROI metric with support from the Boston Consulting Group (Martin & Petty, 2000:xiv). CFROI can be defined as an estimate of the real rate of return earned by a firm on all its assets (Madden, 1999:13). Real rate means to adjust for the effect of inflation (Starovic *et al.*, 2004:13).

Formula 2.5: Cash Flow Return on Investment

$$I = \sum_{i=1}^{n} \frac{CF_i}{(1+r)^n} + \frac{W_{n+1}}{(1+r)^{n+1}}$$

Where

W = Expected residual value of non-depreciating assets

I = Gross Operating Asset Investment

CF = Gross Cash Flow

r = The solution of r is the CFROI

t = period

n = economic life of the investment

(Source: Ameels *et al.*, 2002:19; Madden, 1999:68; Starovic *et al.*, 2004:13)

CFROI determines the relationship of cash generated within the organisation relative to the cash invested (Starovic *et al.*, 2004:13). According to Starovic *et al.* (2004:13) incorporates CFROI the principles of the internal rate of return (IRR) concept within the more advanced form.

The CFROI calculation requires four major inputs namely the life of the assets, the amount of total assets (both depreciating and non-depreciating), the periodic cash flows assumed over the life of those assets and the release of non-depreciating assets in the final period of the life of the assets (Madden, 1999:65).

To calculate CFROI involves 5 steps (Martin & Petty, 2000:116):

1. Estimate the average economic life of the assets of the organisation.
2. Calculate the annual total cash flows, adjusted for inflation, which is expected to be received over the life of the assets of the organisation.
3. Compute the gross investment of the organisation, adjusted for inflation. Divide for the multi-period approach the gross investment between depreciating and non-depreciating assets.
4. Estimate the terminal value of the organisation, adjusted for inflation, equal to the non-depreciating asset release of land and working capital.
5. Calculate the CFROI. It can be calculated using either the multi-period (IRR) method or by using a single period method.

The CFROI model avoids the use of accounting book capital in valuing the firm's existing assets. Since the underlying gross cash flow for the calculation of CFROI is assumed to be constant during the useful life of the fixed assets it is an annual performance figure that has to be recalculated yearly (Young & O'Byrne, 2001:383).

Proponents of CFROI argue that CFROI is a superior metric to predict future cash flows that can then be used as input into conventional value methods (Starovic *et al.*, 2004:13). A crucial advantage of CFROI is that it is not distorted by the effect of inflation nor depreciation, unlike EP and EVA (Starovic *et al.*, 2004:14). An often-heard comment with regard to CFROI is that it is perceived as a complex financial measuring device (Young & O'Byrne, 2001:383).

2.6.4 Shareholder Value Added (SVA)

Alfred Rappaport, known for his book *Creating Shareholder Value*, has developed the SVA metric. SVA is the difference between the present value of incremental cash flow before new investments and the present value of investments in fixed and working capital (Ameels *et al.*, 2002:21; Starovic *et al.*, 2004:10).

Rappaport (1998:49) characterises shareholder value as the absolute economic value resulting from a scenario. SVA addresses the change of shareholder value over a period. SVA can be used to determine the value of the shareholder's stake within the organisation or business unit, as well as to use SVA as a basis to determine and evaluate strategic decisions (Starovic *et al.*, 2004:10).

Formula 2.6a: Shareholder Value Added

Shareholder value = Corporate value – Debt value

(Source: Rappaport, 1998:33)

SVA will therefore focus on the change of corporate value and debt value for a given period.

Thus,

SVA = Cumulative present value of cash flows + Present value of liquidation at end of forecast period – Current liquidation value (Rappaport, 1998:51).

This means that

SVA = (Present value of cash flow from operations during the forecast period + residual value + marketable securities) – Debt

(Source: Ameels *et al.*, 2002:21)

SVA can also be defined as:

Formula 2.6b: Shareholder Value Added

$$\text{Total Shareholder Return} = \frac{\text{(Incremental sales in period t)(Incremental threshold spread in period t)(1-Income tax rate)}}{\text{(Cost of capital)(1+Cost of equity)}^{t-1}}$$

(Source: Rappaport, 1998:55; Starovic *et al.*, 2004:10)

The threshold margin is the minimum operating profit margin a business needs to attain in any period in order to maintain the shareholder value for that period. According to Rappaport (1998:52), the threshold margin is a value-orientated economic break-even analysis. The threshold margin is therefore the operating profit margin level at which the organisation will earn exactly the acceptable minimum rate of return, therefore cost of capital. The SVA approach is best described in the shareholder value network. The network depicts the essential link between the corporate objective of creating shareholder value and the basic value drivers. The value driver model is a comprehensive approach that focuses on seven key drivers of shareholder value, i.e. sales growth rate, operating profit margin, cash tax rate, fixed

capital needs, working capital needs, cost of capital and planning period or value growth duration (Rappaport, 1998:55).

The SVA driver tree model appears to be very useful in helping managers to understand the dynamics of value creation (Ameels *et al.*, 2002:21). The measurement of selected value drivers at divisional level could be complementary to the value-based measures at group level. This can eliminate the need to calculate divisional cost of capital (Ameels *et al.*, 2002:21).

2.6.5 Cash Value Added (CVA)

The Boston Consulting Group (BCG) has also developed the cash value added (CVA) metric as an alternative for EVA. BCG believes that this measure is an improvement over EVA because it is based on cash flows (Martin & Petty, 2000:128).

Formula 2.7: Cash Value Added

CVA = Operating cash flows – Sinking fund depreciation – Capital charge on gross investment

(Source: Martin & Petty, 2000:128)

The sinking fund depreciation is previously known as sustainable cash flows. The capital charge assigns a cost for the use of capital the firm is utilising. This is equal to the firm's cost of capital times the amount of gross capital employed. (Martin & Petty: 2000:128; De Jonge, 2003f).

According to De Jonge (2003f) the CVA model includes only cash items (thus focusing on earnings before depreciation, interest and tax (EBDIT), adjusted for non-cash changes), working capital movement and non-strategic investments. The sum of the three concepts is referred to as operating cash flow (OCF). The next step is to compare the OCF with the OCF demand (OCFD). The OCFD represents the cash flow needed to meet the investors' financial requirements on the company's strategic investments, thus the capital cost. The difference between the OCF and OCFD represents the cash value added or destroyed (Martin & Petty: 2000:128; De Jonge, 2003f).

2.6.6 Total Shareholder Return (TSR) and Total Business Return (TBR)

De Jonge (2003c) defines TSR as the change in the capital value of a listed or quoted company over a period. The period is typically one year. TSR is expressed as a positive or negative percentage of the opening value. TSR is also known as the shareholder rate of return or as total business return (Ameels *et al.*, 2002:13). According to Starovic *et al.* (2004:14) TBR is the internal of the external TSR metric.

Formula 2.8: Total Shareholder Return

$$\text{Total Shareholder Return} = \frac{(P_{t+1} - P_t) + D_{t+1}}{P_t}$$

Where: P = Share Price

D= Dividends Paid

(Source: Ameels *et al.*, 2002:13)

According to Starovic *et al.* (2004:14) TBR represents an internal rate of return (IRR) measure that compares the starting value of a business with the net cash flows realising in the period, plus the value of the business at the end of the period. TBR therefore depends on the accuracy of the valuation of the business at the beginning and end periods. Because of this, TBR is often used in conjunction with CFROI (Starovic *et al.*, 2004:14).

It is claimed by the proponents of this metric that it overcomes the basic weakness of any short-term performance measure, because it incorporates the long-term effect on the value of the business of decisions and actions that have been taken in a specific period (Starovic *et al.*, 2004:14).

According to Ameels *et al.* (2002:13) there are a few shortcomings to TSR:

- It can only be calculated for companies that are listed on the stock exchange, therefore it cannot be used to calculate at individual business level.
- Some say that TSR cannot be used to judge managers' performance because there are so many other factors beyond the control of management that influence it.

2.6.7 Other Metrics

Various new metrics are added on a regular basis to the VBM world. These methods try to overcome specific shortcomings in the existing methods. Other methods are:

- MVA - MVA is the difference between the equity market valuation of a listed or quoted company and the sum of the adjusted book value of debt and equity invested in the organisation (De Jonge, 2003g).
- Equity-spread Approach - the equity-spread approach compares the return on equity (ROE) against the cost of equity and ascertains, by calculating the difference, if shareholder value has been created or destroyed (Brown *et al.*, 2000:4).
- Embedded values – this method reflects future shareholder profits in the insurance business. Embedded value equals the free surplus cash flows plus the value of in-force business (Skandia, 2003).

2.6.8 Comparison of Metrics

According to Young and O'Byrne (2001:428) the various measures of performance can be broken down into 5 categories:

- *Residual income measures* subtract capital cost (including debt and equity) from operating profits. Operating profits can be adjusted for accounting accruals or for cash flows. Typical measures are EVA and CVA.
- *Residual income component measures* incorporate elements of residual income, but do not include capital costs. Typical measures are earnings before interest and tax (EBIT), net operating profit after tax (NOPAT) and return on net assets (RONA).
- *Market-based measures* are derived from the capital markets. Typical measures are total shareholder return (TSR) and market value added (MVA).
- *Cash-flow measures* adjust accounting earnings to exclude the impact of accrual accounting. Typical measures are CFROI and free-cash flow.
- *Traditional income measures* are the metrics that have been used for decades by analysts and executives to measure the performance of organisations and is solely based on traditional accounting information. Typical measures are net income and earnings per share (EPS).

In table 2.2 on page 64 a comparison of the various performance measures is given:

Table 2.2: Comparison of Performance Measures

Measure	Measure type [1]	Currency(C)/ %	Includes cost of debt	Includes cost of equity	Measurable at divisional level	Ease of calculation	Inflation adjusted	Includes value of future investments
EVA	RI	C	Yes	Yes	Yes	Medium	Possibly	No
EP	RI	C	Yes	Yes	Yes	High	No	No
CVA	RI/CF	C	Yes	Yes	Yes	Medium/High	Usually no	No
EBIT	RIC/TI	C	No	No	Yes	High	No	No
NOPAT	RIC/CF	C	No	No	Yes	High	No	No
RONA	RIC	%	No	No	Yes	High	Usually no	No
TSR	MB	%	[2]	[2]	No	High	No	Yes
MVA	MB	C	[2]	[2]	No	High	No	Yes
Free-cash flow	CF	C	No	No	Yes	High	No	No
CFROI	CF	C	No	No	Yes	Low	Yes	No
Net income	TI	C	Yes	No	Yes	High	No	No
EPS	TI	C	Yes	No	No	High	No	No
EV	RI	C	Yes	Yes	Yes	Medium	Possibly	Yes

Notes:

1: RI = residual income, RIC = residual income component, MB = market-based, CF = cash flow, TI = traditional income

2: Capital costs are not explicitly excluded in market-based measures but are reflected indirectly in the discount rate the market inputs to the expected stream of future cashflows or EVA's.

(Source: Young & O'Byrne, 2001:430, adapted)

2.7 Summary

Shareholders expect a return on their investment that is greater than the cost of capital. Putting the shareholder perspective first ensures that stakeholders benefit over the long term. Over the last decade CEO's of some of the largest companies embraced the creation of shareholder wealth as their primary goal. The quest for value is not new. In 1776 Adam Smith wrote that every individual plans to employ his capital so that its product may be of greatest value to him.

Over the last century the business environment changed considerably. Globalisation and privatisation forced management to focus on creating shareholder wealth. Investors are not only exposed to global trends through the stock they hold, but can also easily invest globally today. Investors also became more active in the running of the organisations they invest in. They are putting more pressure on executives to deliver superior value. By choosing shareholder value creation as the overarching goal of the organisation, and rewarding accordingly, VBM provides a solution to overcome the agency theory.

To be able to deliver on value, management needs to understand how value is created within the organisation. All the factors focus in on management to create and understand value. This requires a new framework of information that supports investors, analysts and management to understand the true value creation within an organisation. VBM is such a framework.

VBM is not a replacement of traditional accounting. The pie of information sources to base decisions on just got much bigger. The exclusion of the time value of money and the opportunity cost of the risk of the investment as well as the inclusion of non-cash items such as depreciation, distort the true value creation picture of an organisation when traditional accounting measures are used. Decisions and performance are not only based any more on ROE or similar accounting measures, but are based on whether an organisation creates value for its shareholders. Value is created for shareholders of an organisation when the returns they receive more than compensate for their perceived risk of investing.

Some proponents define VBM as a broad holistic organisation process, whilst others narrow the definition down to a single metric. The overarching goal of VBM is to maximise shareholder wealth. VBM is a managerial framework that links strategy, measurement and operational processes by ensuring that there is goal congruence, being creating value for shareholders. It therefore ensures and encourages all levels in the organisation to change their mindsets to focus on value creation. Various metrics have been developed to measure the value creation process within the organisation. Discounted cash flow to the present value at the weighted average cost of capital lies at the heart of these metrics. VBM is not unique in coordinating the various business processes, but is unique in aligning those processes to create value for shareholders.

VBM metrics are, most of the times, described as financial performance measures. Metric such as EVA, CFROI, MVA, SVA, etc., are believed to reflect the true business economics better than the traditional accounting based measures. VBM metric are distinguished from accounting based measures by including all of the following:

- Cash flow analysis;
- Adjusting future cash flow with the time value of money; and
- The inclusion of cost of capital.

The most prominent metrics are:

- EVA is a refined version of economic profit or residual income. EVA is the net operating profit after tax less the weighted average cost of capital. Various adjustments are made to profit and capital to ensure that the profit is close to cash flow and that the capital base utilised by the business are fully represented in the calculation.
- CFROI determines the relationship of cash generated within the organisation relative to the cash invested.
- SVA is the difference between the present value of incremental cash flow before new investment and the present value of investment in fixed and working capital.
- CVA is the operating cash flows minus sinking fund depreciation minus a capital charge on gross investment.

- TSR/TBR is an internal rate of return (IRR) measure that compares the starting value of a business with the net cash flows realising in the period, plus the value of the business at the end of the period.

VBM is not a silver bullet or a crystal ball that will solve all the organisational problems. The measure itself is only as good as the information it is based on and the commitment of management within the organisation. What you measure is what you will get.

CHAPTER 3: VALUE-BASED MANAGEMENT – PRACTICAL CONSIDERATIONS

"A successful business is one that creates value for its owners"
(Armitage, 2003:1)

3.1 Introduction

To become a value-creating organisation, it seems that you only have to choose the creation of shareholder wealth as your primary goal and then adopt some VBM metric, such as economic value added, and suddenly there will be goal congruence, good decision-making and the share price will flourish. Others believe that if you bring in one of the big consultancies to implement a VBM system, this will provide you with a ticket for success. If it was so simple and easy to implement VBM, why did a company like AT&T fail at their implementation despite recruiting Stern Stewart to assist with the implementation, whilst other companies, like Lloyds TSB and Cadbury Schweppes, were very successful with their VBM implementation? Almost half the companies that have adopted a VBM metric, only achieved mediocre success, and others even abandoned their implementation after 5 years, returning to traditional measures such as earnings per share (Haspeslagh *et al.*, 2001:65; Starovic *et al.*, 2004:7).

The organisations of today are complex diversified organisations, trading on multiple continents with a broad range of products, services and markets. Therefore organisations have typical hierarchies consisting of various business units. To ensure goal congruence, it is implied that these business units should have the same metrics. One of the key elements of VBM metrics is the inclusion of the cost of capital. As discussed in chapter 2, the cost of capital is the minimum return investors require, represented for example by the WACC (weighted average cost of capital) of an organisation. To determine capital and WACC at divisional level are problematic and therefore hampers the application of VBM metrics at lower levels within the organisation. A further challenge is the impact of one division's decisions on other divisions, which might reflect negatively on the success of the group at large. The implementation of VBM is not a straightforward and simple process.

The first primary goal of the research, the conceptualisation of VBM, is addressed within chapters two to four. In Chapter 3 the following secondary goals are addressed as discussed in paragraph 1.6 on page 9:

A.4 Key success factors for a VBM implementation (paragraph 3.2 on page 69)

A.5. The application of VBM at the lower levels in the organisation (paragraph 3.3 on page 84)

A.6 VBM within the financial services industry (paragraph 3.4 on page 93)

In this chapter the following will be investigated:

- The success factors for a VBM implementation – from the various literature sources there are a common set of success factors that will enhance the probability for a successful VBM implementation. A discussion of the most important rules will follow.
- VBM at lower levels – everyone in the organisation should put their minds on value creation; the challenge is to take VBM to everyone within the organisation.
- Value drivers – the use of value drivers are a crucial element for the successful implementation of VBM at lower levels within the organisation. They are also crucial in determining the core KPI's for divisions within an organisation.
- VBM within the Banking Industry.

3.2 The Success Factors for a Value-Based Management Implementation

Some companies succeeded, others failed. Lloyds TSB reaped the reward of their VBM implementation. The share price of Lloyds TSB doubled every three years for 15 years. According to the chairman of Lloyds TSB this could not be achieved by incremental change, but requires major changes and also abolishing the old ways of doing things. The major change for Lloyds TSB was the implementation of VBM directing the company to focus on shareholder wealth creation (Haspeslagh *et al.*, 2001:66). Although Lloyds TSB is viewed as a pioneer with the implementation of VBM, there are numerous prominent organisations that reaped the rewards of their VBM implementations. Prominent companies such as The Royal Bank of Canada, Barclays Bank, Coca-Cola, Dow Chemicals and Cadbury Schweppes all proclaim

success from their VBM implementations (Sharman, 2005:1; Starovic *et al.*, 2004:9; Haspeslagh *et al.*, 2001:63).

The praise that the former chairman of Lloyds TSB, Sir Brian Pittman, gave to VBM on the success of Lloyds TSB needs to be viewed in conjunction with his comments on the implementation itself. Lloyds TSB management found the implementation of VBM much more complicated than what the proponents of VBM originally suggested. It requires a great deal of patience, effort and money (Haspeslagh *et al.*, 2001:66).

The success of VBM only works if management realises that VBM is not only about the financial numbers, but more about the culture of the organisation, thus VBM needs to become the way of life in your organisation (Chopp & Paglia, 2002:1).

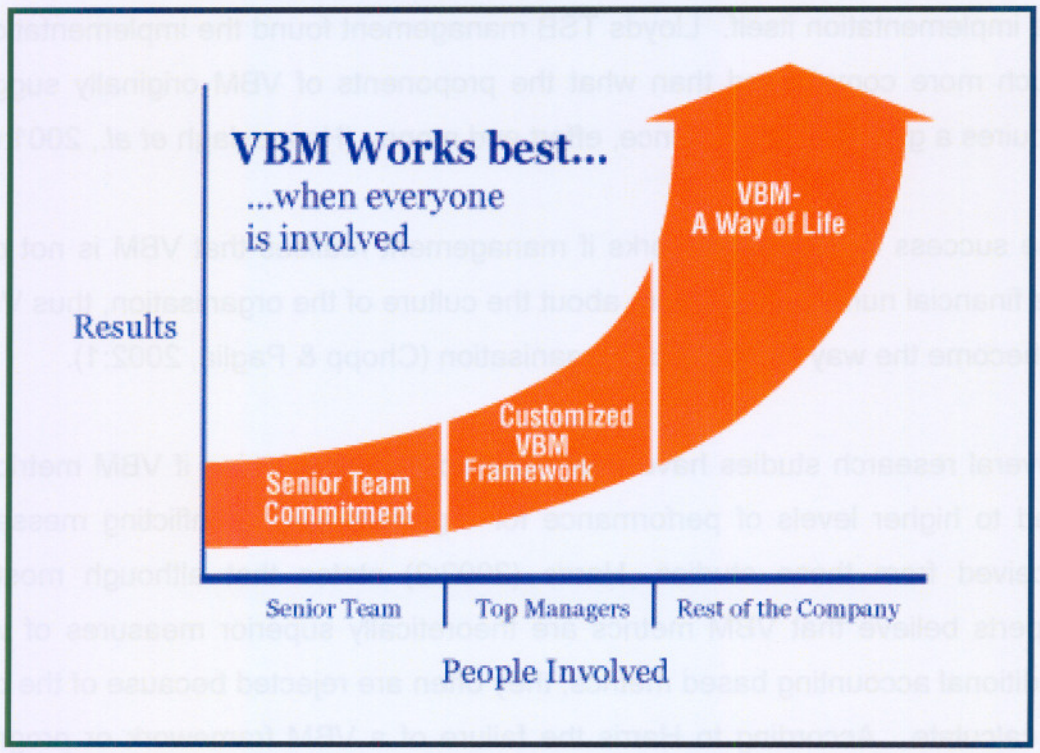
Several research studies have been conducted to determine if VBM metrics actually lead to higher levels of performance for organisations. Conflicting messages were received from these studies. Harris (2002:2) states that although most financial experts believe that VBM metrics are theoretically superior measures of value than traditional accounting based metrics; they often are rejected because of the complexity to calculate. According to Harris the failure of a VBM framework or program is not because of the complexity of the measure, but rather the result of the framework's design, especially when it comes to incentive design.

VBM has the following limitations (De Jonge, 2005a):

- VBM requires a cultural change. It therefore requires considerable time, resources and patience to be successful.
- VBM might seem to be simpler than corporate strategy; it is not.
- EVA, CFROI and some of the other tools are strong management support tools and processes. They do come with a cost. It is therefore advisable not to go too deep into data and make the metrics too complex.
- Caution needs to be taken to ensure that the wrong things are measured, if so it can lead to destroying value.
- VBM requires strong and visible top management support.
- Comprehensive training and consultancy is necessary and can be costly.
- The perfect VBM valuation metrics are still to be invented. Whatever metric an organisation use will have its shortcomings.

To obtain the maximum value from a VBM program, a company needs to accomplish three broad steps (Chopp & Paglia, 2002:3):

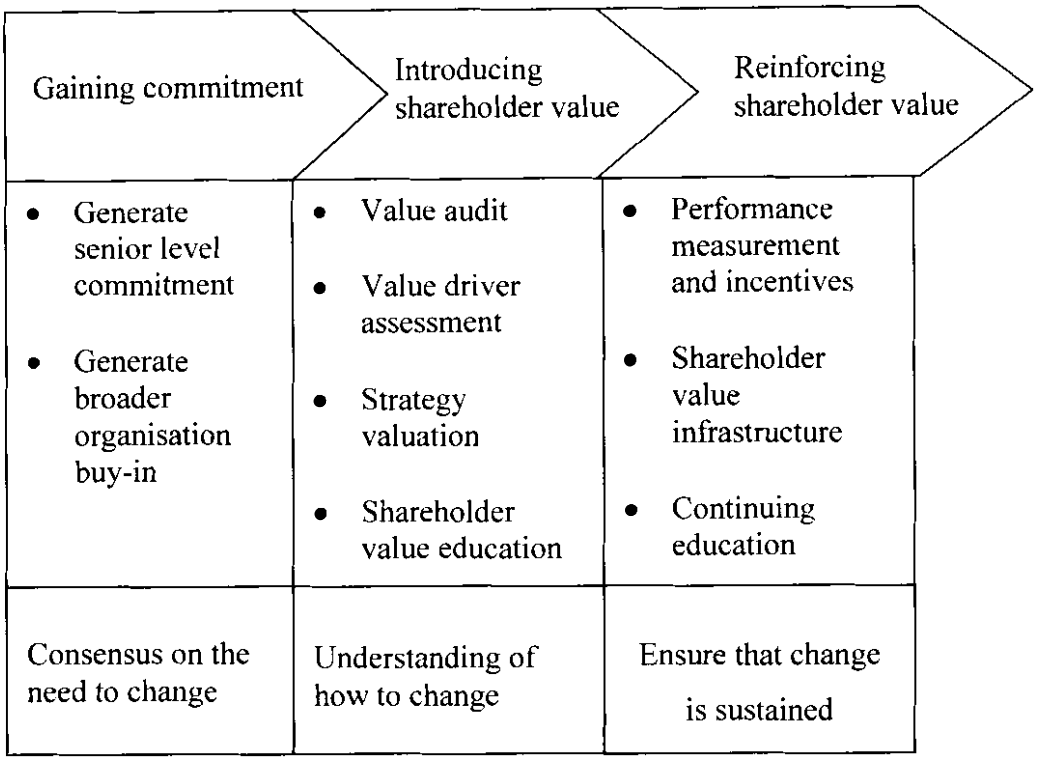
Diagram 3.1: Maximising the Value realised from the Value-Based Management Implementation



(Source: Chopp & Paglia, 2002:3)

Diagram 3.1 above illustrates how value is maximised through the broad steps of senior team commitment, customisation of the VBM framework and making VBM the way of life within the organisation. Maximum value from a VBM implementation is achieved when everyone within the organisation is involved. All proponents of VBM believe that the highest possible success rate is only achieved by involving all the people within the organisation, making VBM the way of life within the organisation. Adopting VBM requires a cultural change within the organisation as the interests of shareholders take the centre stage. VBM therefore needs to be driven down into the organisation where all targets and evaluation systems are brought in line with VBM (Botten & Sims, 2004:400).

Diagram 3.2: Shareholder Value Implementation Process



(Source: Rappaport, 1998:165)

The implementation of shareholder value occurs in three phases (Rappaport, 1998:164):

- Senior management must believe that the need for change is critical – if management have consensus that there is no other option than change, you will have commitment from senior management and the broader organisation (refer to diagram 3.2 above).
- The appropriate levels of change is defined and understood – it is critical for the organisation to know what needs to be changed and how it should be changed. During this phase the value audit, value driver assessment and education are critical (refer to diagram 3.2 above).
- Change must be reinforced to ensure sustainability – to have sustainable value creation the loop must be closed. By linking performance measurement and rewards to value creation, management will ensure that shareholder value is continuously reinforced within the daily lives of employees (refer to diagram 3.2 above).

The fundamental building block of VBM is the understanding and acceptance by all managers on not only why value creation is important, but also appreciates the underlying concepts of value creation, therefore changing their mindsets and differentiating their thinking – a cultural change (Young & O'Byrne, 2001:85).

Harris (2002:3) believes that the readiness of a company for VBM incentive implementation can be defined into three stages:

- *Embryonic stage* – the top financial and operational management of the organisation are committed to VBM, but the supporting systems have not been developed or communicated throughout the organisation.
- *Learning stage* – the planning, financial and other necessary supporting systems have been converted to the requirements of VBM. Most employees have been introduced and received training on the concept of VBM, but have not had enough experience to understand the impact of their decisions on the value creation process.
- *Mature stage* – decisions are constantly made with the focus to create shareholder value. The various systems are in place to measure and report results for the various centres, product and customers within the organisation.

Although the process of VBM implementation takes time and is difficult, there are significant benefits that organisations will realise (Haspeslagh *et al.*, 2001:63):

- Organisations will make better and smarter strategic decisions;
- Managers are dedicated to the long term sustainability of the organisation in creating shareholder wealth; and
- There is alignment between the actions and decisions of employees and the strategy of the organisation.

The advantages of VBM can be summarised as (Starovic *et al.*, 2004:22):

- It provides a single objective internally and externally namely shareholder value creation.
- The metrics are powerful tools to use for measurement and comparatives for benchmarking.
- It assists in allocating resources to what matters – value creating activities.
- It has a positive effect on financial performance.

- It is a powerful strategic tool.
- It assists in focusing management on the core value drivers.
- It overcomes the limitations of the agency theory. Employees act as if they are the owners of the business.

VBM has the following disadvantages (Starovic *et al.*, 2004:22):

- The different definitions and metrics proposed complicate VBM.
- Difficulties to take VBM metrics to lower levels within the organisation.
- It is a costly exercise that takes time, resources and commitment.
- The metrics can become complex and difficult to understand and manage.

The proponents of VBM are not disillusioned about the difficulty to succeed and the effort it will take within the organisation to make a success of such an implementation. They all highlight factors that should be present to ensure a greater chance of success. The factors can be grouped into the following (Starovic *et al.*, 2004:19; Haspeslagh *et al.*, 2001:8; Harris, 2002:3):

- Commitment to shareholder value creation from top management and the organisation at large.
- Linking incentive compensation to value creation.
- Training, education and communication.
- Customised VBM framework.
- Business unit empowerment.
- Keep it simple and broad.
- The VBM circle – closing the loop.

3.2.1 Commitment to Shareholder Value Creation from Top Management and the Organisation at Large

Rappaport (1998:164) believes that the commitment from the CEO is the most important factor that can determine the success of the implementation of VBM within an organisation. CEO's might even agree to the implementation of VBM within their organisation, but if their compensation does not reflect this, actions will not follow the verbal commitment (refer to paragraph 3.2.2 on page 75).

It is also important to get the commitment from employees. Harris (2002:4) states that employees that are committed to VBM, will more likely take actions and decisions that will support the goals of value creation, because they understand their contribution to the value chain and the rewards associated with it.

Visible executive support and commitment is critical for a successful VBM implementation. Starovic *et al.* (2004:19) states that in successful organisations, VBM is associated with key top executives within the organisation.

Management must wholeheartedly believe that there is a need for urgent change. A company must be ready for such an implementation. To have a successful VBM implementation, management and the whole organisation must embrace VBM as a management framework. An organisation will gain the maximum value from their VBM implementation if VBM is instilled as the way of life within the organisation, requiring the buy-in of not only top management, but also the organisation at large. For VBM to succeed it is unimaginable if there is no top executive support. Top executives have the authority to drive change within the business.

3.2.2 Linking Incentive Compensation to Value Creation

Too often companies believe that the success of a VBM implementation depends on the selection of the best metric that is tailored in such a way that it meets most of the needs of the organisation. According to Harris (2002:2) it is not as simple as that. Compensation is a critical success factor within a VBM program. Management and employees must be rewarded for the right results achieved through their decisions and actions. The aim is to reward employees for acting like shareholders, overcoming the agency theory. Garvey and Milbourn (2000:1) state that there is a general accepted belief that compensation based on performance is a critical corporate governance mechanism. According to Garvey and Milbourn, the challenge is more how to design the mechanism. Ballow *et al.* (2004:4) believes that VBM is more than a financial exercise, the aim is to steer the organisation and individual behaviour to create value for shareholders. This can only be achieved if VBM is extended into the compensation plan of the organisation.

Different performance measures within the organisation are used within each of the management processes such as strategic planning, budgeting, reporting and

compensation. These different measures continuously give conflicting messages and information to managers within the organisation (Knight, 1998:1). The outcome of this is the inability of the organisation to reach its full potential.

One of the key rules that all the proponents recommend for a successful VBM implementation is the alignment of compensation to value creation. Rappaport (1998:112) believes the value creation process is central to the alignment of the interests of managers and of shareholders. This is achieved by the proper design of the performance measures and the method of compensation to ensure goal congruence.

Management is continuously confronted with weighing up short-term decisions vs. long-term sustainability decisions. The focus of the measurement systems needs to ensure that the short-term performance measures used, are in line with the long-term measures (Rappaport, 1998:112). The short-term measures and long-term measures need to reflect the intent of the organisation to create shareholder wealth. Effective performance measurement systems have been researched and debated for years. Today, performance measurement concepts such as the balanced scorecard are just as fashionable management tools in executive boardrooms as VBM. The intent of VBM is not to replace or advocate any of these systems, but merely requires that these systems incorporate the creation of shareholder value as part of the core measurements. To be successful, performance measurements and the rewarding system need to reflect the intent of VBM to ensure that there is alignment between the goals of management and of the shareholders.

At each responsibility level within the organisation three issues need to be addressed (Rappaport, 1998:113):

- What is the most appropriate measure of performance?
- What is the most appropriate target level of performance?
- How should rewards be linked to performance?

When compensation and measurements are linked, it is critical that the above three issues are dealt with at the various levels. According to Rappaport (1998:116) the true value creation of any organisation lies within the operational business units. It is here

that the day-to-day decisions are made. Therefore it is critical for a successful VBM to be cascaded down to the various responsibility centres of the organisation.

Harris (2002:5) believes that the following are the key principles to ensure effective compensation for value creation:

- Ownership should be rewarded based on absolute performance, and not performance relative against an internal budget. Thus, managers are no longer awarded for their negotiation skills during budget times, or penalised for stretched targets. They are measured on what shareholders expect of them.
- VBM incentives should reward long-term sustainable value creation.
- The rewards for ownership should be unlimited.
- VBM incentives should include the downside risk, but also the upside opportunity – it is critical to penalise when value is destroyed, and to reward appropriately when value is created, otherwise there will be no ownership mentality.
- VBM should be measured at the lowest unit level – although this is desirable, it is not always practical and possible to calculate VBM at the lowest unit level. Difficulties to correctly allocate capital create challenges and lead to the VBM measure to become obsolete.

VBM focuses the organisation on the creation of wealth. The VBM system must encourage staff to focus on the activities that will create shareholder value. Martin and Petty (2000:xiv) believe that VBM provides a structure that connects performance with compensation. The VBM system ensures that managers are rewarded to act like shareholders, therefore benefiting the interests of the shareholders.

The agenda of VBM should include the alignment of the interests of shareholders and of management (Starovic *et al.*, 2004:17). If the performance measurement and rewarding system do not measure and reward the creation of shareholder wealth, a VBM implementation would be fruitless. The term what you measure is what you get is reality. If it is required by management to act as if they are the owners of the business, therefore acting in the interest of shareholders, they need to be rewarded for taking the right decisions.

3.2.3 Training, Education and Communication

For employees to be able to act like managers and also to make decisions that will create value, they need to understand how their decisions and actions will impact on the value creation process of the organisation. If employees of the organisation are rewarded based on the value they create, it will be critical for them to understand the value creation process. Most organisations battle to articulate the core goals and objectives of the organisation to employees.

Any change within the organisation requires communication and sometimes training and education. According to Knight (1998:266) VBM is no exception. The success of the VBM implementation will depend on the quality and effectiveness of the education, communication and training.

Harris (2002:4) believes that the company should create connections to all employees to ensure that they get educated and communicated on VBM. These employees should also receive meaningful and timely information to support them in their decision-making.

Organisations need to commit time and resources in the development and conducting of training and education (Knight, 1998:266). The training and education courses need to be customised for the organisation to have maximum impact and return. The goals of a training and education program are (Knight, 1998:266):

- To create and build an awareness of the various value concepts and their importance.
- To incorporate these concepts in the daily operations of the organisation and decisions taken.

To be effective, the training and education need to be customised for the various roles of the organisation. Education, communication and training are not a once-off exercise. It needs to be ongoing. Behaviour will not change if employees are only exposed to it once.

According to Knight (1998:269), a successful communication plan includes the four R's:

- Repetition – once-off messages are ineffective and to be successful the message needs to be delivered repeatedly. The effectiveness of repeating the same message within television ads comes to mind.
- Reinforcement – there needs to be periodic reinforcement from management of the importance and the buy-in into VBM. This will continue to build the usage of VBM within the daily decision-making process and also reinforce the focus on value.
- Reception – the success of the VBM program depends on how well it is received by employees. Without the necessary training and education, employees will not understand and buy-in into VBM.
- Redundancy – the concepts of value must be implemented in as many activities of the organisation as possible. This will increase the amount of time that employees will be exposed to VBM within their daily activities.

According to Starovic *et al.* (2004:19), the difference between successful VBM implementation and unsuccessful VBM implementation is not the amount that is spent on training and communication, but the **effort** and **consistency** that have been put into the communication of results and to train the various levels of staff so that they would understand the underlying principles of creating value for shareholders.

To have a successful VBM implementation, organisations need to ensure that appropriate programs for training, education and communication are developed and implemented to ensure that employees understand the concepts of value within their daily activities, how their actions impact on value and to reinforce the importance and progress of value creation to ensure that value creation is instilled as part of the day-to-day decision-making within the organisation.

3.2.4 Customised Value-Based Management Framework

One of the key success factors of a VBM program is the customisation of VBM for the organisation. What works for one company, does not necessarily work for another company. This also includes the adaptation of the specific metrics used to be compatible to the organisation needs from a VBM program. EVA is known for its plethora of adjustments that should be made to the GAAP numbers, to reflect

economic profit. Young (1999:12) stressed that it is not necessary for companies to make all of these adjustments. What is logical from a policy perspective for one organisation might be inappropriate for another organisation. Martin and Petty (2000:215) found in their research that most of the successful VBM organisations learned from the consultancies, but then adapted their VBM to meet the needs of their specific organisation.

In paragraph 2.5.6 on page 45 it was noted that the VBM framework integrates the decision-making and behavioural processes of the organisation. The framework therefore includes business planning, target setting, reporting and feedback and rewards. These can differ from organisation to organisation. It is therefore critical that the VBM framework needs to be developed to take cognisance of the specific characteristics of the organisation.

3.2.5 Business Unit Empowerment

The intent of VBM is to ensure that all actions within the organisation are geared to create shareholder value. It is therefore likely that a VBM implementation will have an impact on most aspects of the organisation (Starovic *et al.*, 2004:20).

For leading VBM practitioners VBM is not a tool only for executives. Haspeslagh *et al.* (2001:69) highlighted that they will reorganise their organisations entirely if they can transform the employees into strategic planners.

According to Starovic *et al.* (2004:20), the structure of an organisation evolves over time as a response to short-term strategic priorities. The structure is not always representative of the organisation's current decision-making or value creation processes, which can be complex within larger organisations. To understand when value is created within the organisation, it is critical to ensure clarity within the decision-making process.

Barclays Bank reorganised their four divisions into 23 strategic business units, each one having their own value drivers that determine their strategy (Starovic *et al.*, 2004:20). Dow Chemicals followed the same route when they reorganised the 3-"mini"-quasi geographic independent Dow Companies, into 14 organised business units according to segments. There are more than 100 value centres within these

units, each one tasked to align its strategy to the overall VBM strategy of Dow Chemicals (Haspeslagh *et al.*, 2001:69).

One of the promises of VBM is the transformation of managers to think and act like owners. They need to be able to make and feel the consequences of making decisions as owners. It is therefore critical for a VBM program to empower the managers of business units to make decisions as if they were the owners of the organisation. Stewart (1999:223) stated that by transforming managers into owners is a proven and powerful way to create value.

Haspeslagh *et al.* (2000:23) recommend the following for business unit empowerment:

- Stretched and challenging targets should be set for business units to change their mindset away from incremental thinking.
- Strategy development processes should be decentralised into the business units, but at the same time strategy development should be closely linked to resource allocation.
- Business units must be challenged to come up with several value creating initiatives.
- VBM language (value creation) should be used between the centre and the business units.
- MIS should be upgraded to enable business unit managers to use the information for strategy development, whilst the corporate executives still have an influence over the whole process.

Within the large conglomerate organisations of today, a proven way to ensure that the various business units within the organisation create value is to empower them to think like business owners. Coupled with this the incentive through compensation to create value and the various business units will all be geared to create shareholder value.

3.2.6 Keep it Simple and Broad

Most of the study participants in the research conducted by Martin and Petty (2000:215) believe that an organisation should keep their VBM system as simple as possible. Employees need to trust and understand the VBM system. An effective VBM program is gained through the commitment of employees. If the employees trust

and understand the goal and how VBM works, it will make it much easier to gain commitment.

According to Haspeslagh *et al.* (2001:70) most unsuccessful VBM organisations focus on developing and maintaining too complex VBM performance metrics. The successful VBM implementers comply with four rules (Haspeslagh *et al.*, 2001:70):

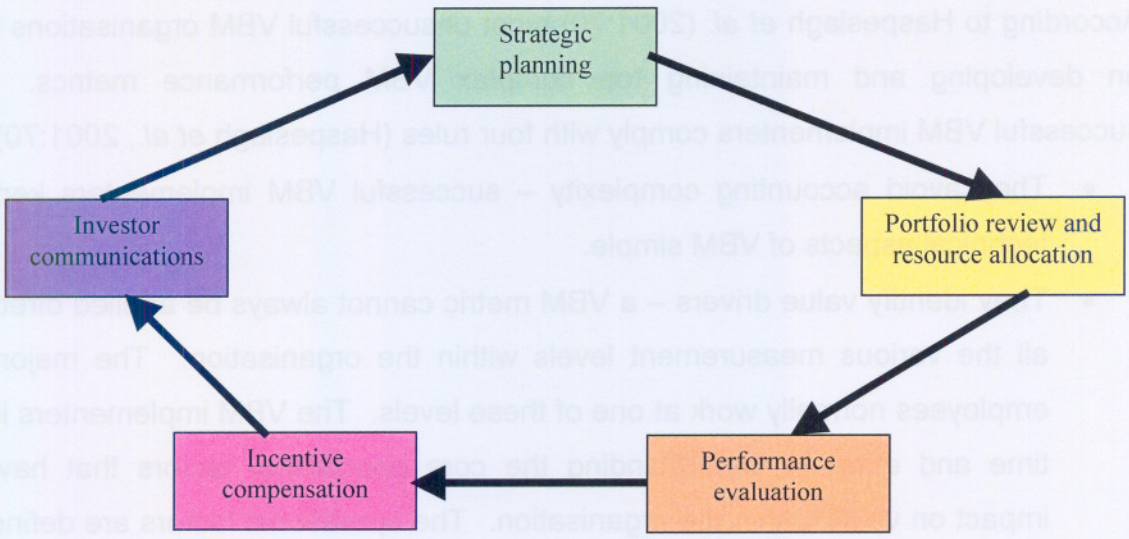
- They avoid accounting complexity – successful VBM implementers kept the technical aspects of VBM simple.
- They identify value drivers – a VBM metric cannot always be applied directly at all the various measurement levels within the organisation. The majority of employees normally work at one of these levels. The VBM implementers invest time and effort in understanding the core operational factors that have an impact on value within the organisation. The operational factors are defined as the value drivers of the organisation. The value drivers are rather used as measurement input because the business unit better understand this.
- They integrate budgeting with strategic planning – the successful VBM implementers integrated their budgeting with their strategic planning system. This is to avoid that the budget process and subsequent information become a short-term measure that will have precedence over the longer-term strategic initiatives, especially when organisations embark on a cost-cutting exercise.
- They invest substantially into information systems – to assess, estimate and measure the impact of a business unit on the overall value process of the organisation, you need to have quality and accurate information. This can put an enormous strain on the existing operational systems of the organisation. Successful VBM implementers have invested heavily into their IT systems to ensure that the information required is available for use. This also assists in building the credibility of VBM, if the users can trust and understand the information.

3.2.7 The Value-Based Management Circle – Closing the Loop

The proponents of VBM believe that a successful VBM implementation can only happen if the loop is closed, thereby ensuring that the learning from one-year is fed back into the system.

The shareholder value management cycle can be represented as follows:

Diagram 3.3: Shareholder Value Management Cycle



(Source: Rappaport, 1998:165, adapted)

The continuous circle reinforces the VBM program within the organisation (refer to diagram 3.3 above). According to Haspeslagh *et al.* (2001:71), the VBM program is reinforced through the redefinition of relationships between the corporate leaders, the business units and eventually the frontline employees.

From above, it can be concluded that, to have a successful VBM implementation the organisation needs to have a closed loop. This will enable the organisation to:

- Integrate the various management systems and ensure they are in sync.
- Have a feedback system in the process, to ensure that new knowledge and experience learned throughout the process can be incorporated and addressed.
- It redefines relationships within the organisation.

3.2.8 Conclusion

Various organisations embarked on the VBM road. Some were successful - others not. There is no standard recipe organisations can use to ensure that their implementation of VBM will be successful for their specific organisation. However, various proponents of VBM have identified over time a common set of characteristics

or "golden rules" in the programs of successful VBM implementers, which can be concluded from the above. They are:

- Commitment to shareholder value creation from top management and the organisation at large
- Linking incentive compensation to value creation
- Training, education and communication
- Customised VBM framework
- Business unit empowerment
- Keep it simple and broad
- The VBM circle – closing the loop

3.3 The Application of Value-Based Management at Lower Levels of the Organisation

A familiar phrase used today is "Structure follows strategy" (Stewart, 1999:669). The creation of shareholder wealth should be the primary objective of an organisation. An organisation therefore needs to ensure that it structures itself in such a way that it supports its primary goal of creating shareholder wealth. According to Knight (1998:261) value-based management can only be successful if value-based decision-making is implemented throughout the whole organisation.

In today's decentralised and diversified organisation with the broad range of products and markets, the day-to-day decisions are typically taken by operational managers (Rappaport, 1998:116). It is critically important that these decisions support the overall goal of shareholder value creation. For these managers there are no share price information that continuously provides feedback on their performance, as for the executives. Each individual business unit should be measured according to their specific contribution in the creation of shareholder wealth. These diversified and decentralised organisations have typical structures consisting of corporate, group and business unit levels. Strategic planning and decision-making occurs at all levels within the organisation. Each level is confronted with different strategic tasks. These tasks should be linked to one objective, being the creation of shareholder wealth (Rappaport, 1998:78). According to Sammer (2001:1) many of the companies that

implemented VBM, have not been able to make VBM effective and meaningful to the lower levels within the organisation.

Achieving single goal congruence between the various business units, organisations have embarked on the road of value creation through the implementation of a VBM framework. The focus of a VBM framework is to link the processes of strategy, measurement and operational processes by creating a single goal - to create sustainable value for the shareholders. This ensures and encourages all levels within the organisation to focus on the creation of shareholder wealth. By implementing a value framework for an organisation, management will be assisted to select strategies and structures supporting this framework. Organisations are made up of various parts. Therefore it is critical to create value frameworks for individual business units. By doing so organisations will better understand the value contribution of the various business units.

3.3.1 Value-Based Management at Divisional Level

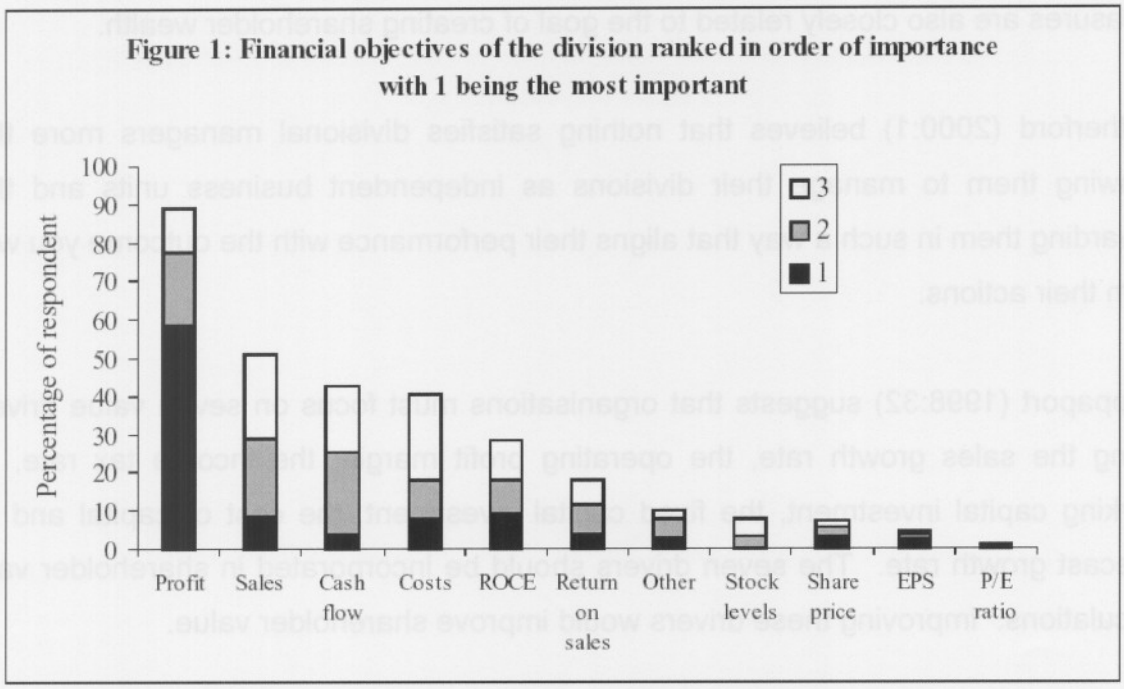
There is a plethora of VBM metrics that can be used today. Most of these metrics focus on measuring the success of the organisation at large. Today's organisations are complex diversified global companies. To measure value creation at a corporate level does not necessarily provide a line of sight on value creation for managers down the line. A shared commitment to create shareholder value plays a pivotal role in promoting interdivisional relationships (Starovic *et al.*, 2004:20). To create shareholder value is not only the responsibility of the CEO of the organisation. Each and every business unit must take joint responsibility to ensure that they contribute to the overarching vision of the organisation to create shareholder value.

Spencer and Francis (1998:6) conducted research on the use of VBM principles at divisional level. They first investigated the financial objectives of divisions, with one being the most important.

From diagram 3.4 on page 86 it still seems that profit is the primary objective at divisional level. Cash flow, one of the underlying concepts in VBM metrics, only came fifth as primary objective, but overall it rose to third. The use of profit as primary objective ignores the cost of capital and the time-value of money. This can result in

managers only focusing on increasing short-term profit numbers by avoiding necessary capital expenditure.

Diagram 3.4: Financial Objectives at Divisional Level



(Source: Spencer & Francis, 1998:6)

According to Martin and Petty (2000:43) there are serious shortcomings in traditional measures such as return on sales (ROS) and return on net assets (RONA). The most important shortcoming of ROS is the fact that only information from the income statement is reflected and do not take into account the investments required to be able to realise the sales and earnings numbers. It also does not take into account the opportunity cost associated with these investments. Although RONA incorporates the assets of the organisation into the calculation it ignores the opportunity cost of capital. Residual income can be viewed as the starting point of most value-based measures. Residual income (RI) is the net operating profit after tax (NOPAT) less a capital charge on the book value of assets, thus overcoming the flaws within RONA, for not taking into account the cost of capital. Although RI solves some of the investment problems of RONA, the shortcoming within RI is that it does not take into account the possible future income that will be generated from the investments made today - the typical research and development problem.

According to Martin and Petty (2000:43) it is critical to measure the performance of business units. This will ultimately reflect on the performance of the organisation. Various methods and tools have been used to measure the success of business unit performance. It is critical for management to ensure that business unit performance measures are also closely related to the goal of creating shareholder wealth.

Rutherford (2000:1) believes that nothing satisfies divisional managers more than allowing them to manage their divisions as independent business units and then rewarding them in such a way that aligns their performance with the outcome you want from their actions.

Rappaport (1998:32) suggests that organisations must focus on seven value drivers, being the sales growth rate, the operating profit margin, the income tax rate, the working capital investment, the fixed capital investment, the cost of capital and the forecast growth rate. The seven drivers should be incorporated in shareholder value calculations. Improving these drivers would improve shareholder value.

The focus of VBM metrics is to incorporate the drivers into a single measure, be it EVA, SVA, CFROI, etc. Despite the widespread visibility and opinions regarding these measures, there is an absence of empirical evidence to the effective use of VBM metrics at the divisional level (Spencer & Francis, 1998:4). The problem however is that at a divisional level these metrics are not controllable, because not all the underlying drivers for a metric would exist in a division.

Rappaport (1998:119) believes that to measure the success of individual business units the best way is to determine the leading indicators of long-term value and use this as measure of success. Stewart (1999:604) believes that incentives and decision-making should be decentralised into the various business units. If decision-making takes place at divisional or business unit level, the managers of the business units require information that enable them to make decisions that will create value not only for their own business unit, but also for the organisation at large.

Although organisations might have one value metric overall, there are multiple factors that have an impact on the value of the organisation. VBM proponents refer to this as the value drivers of the organisation. To support VBM at the lower levels of the

organisation, organisations make use of value drivers and value trees. Value trees break the chosen value metric down into its core value drivers. This enables the various business units to focus on those elements within the value tree that they can change.

3.3.2 Value Drivers

Value drivers are those inputs in the value map of an organisation that will have an impact on the value of the organisation. According to Knight (1998:167) value drivers are the operating factors with the biggest influence on operational and financial results. Value drivers play a critical role in the understanding of the impact of management's current actions on the current and future EVA of the organisation (Young & O'Byrne, 2001:272; De Waal, 2005:32). According to Harris (2002:5), employees need to understand how value is created within the organisation. By creating connections for each staff member between his or her specific role in the organisation and how value is created within the organisation, education of staff members will be enhanced.

For most people within the organisation, strategy is too abstract and removed from their daily activities. Value drivers help breaking down strategy to a level that is both meaningful and actionable for managers (Knight, 1998:167). Value drivers must not only reflect important operational aspects, but also provide non-financial information to be used as input into the VBM metric. Value drivers can be divided into two categories: financial drivers and non-financial drivers (Young & O'Byrne, 2001:272). By breaking down shareholder value into the various value drivers of the organisation, management will start to have an internal perspective of the organisation and where value is created that is consistent to the external investor perspective.

According to Knight (1998:168) the understanding of value drivers is helpful, but the real value only realises when management uses the value drivers in decision-making and the organisational processes. Organisations base their decisions too often on short-term quarterly financial information. This information only provides information on how the company performed previously.

3.3.2.1 Financial Drivers

Young and O'Byrne (2001:272) view financial drivers as the underlying components that are used to calculate the metric (in their viewpoint the underlying components to calculate EVA). As mentioned in paragraph 3.3.1 on page 87, organisations should focus on seven value driver groups:

- Sales growth.
- Operating profit margin.
- Income tax rate.
- Working capital investment.
- Fixed capital investment.
- Cost of capital.
- Forecasted growth rate.

These drivers have a direct impact on the VBM metric the organisation use. Each and every business unit cannot influence all of these measures, and therefore the specific driver applicable for a business unit should be used as measure and strategy setting. Companies should reward the employees that have an impact on a specific input. It is therefore not required to have a VBM metric at the lowest level, but to use a measure a manager can influence that have a positive impact on the overall VBM metric of the organisation.

Although the financial metrics have a positive impact on the VBM metric used, they are historical in nature (Young & O'Byrne, 2001:278). Although financial indicators, such as asset turnover, are value driver indicators, it provides us with historical information only. They are therefore lagging indicators of value.

3.3.2.2 Non-Financial Drivers

The second group of value drivers are what is referred to as non-financial or leading indicators of value. Leading indicators of value are current achievements that have a considerable positive impact on the long-term value of the organisation. They are measurable and can also be communicated easily. Typical examples are production efficiencies, customer retention rates and customer satisfaction rates. The improvement or achievement of such indicators will normally have a positive benefit to value creation on the long term. According to Rappaport (1998:129) the process of

identifying leading indicators of value requires a proper understanding of customers, products, and markets and other sources of information to understand the total business environment of the organisation. To identify the leading indicators of value is a difficult, but challenging, rewarding and revealing exercise. Leading indicators of value are those that provide us with forward-looking information.

3.3.3 The Value Map

Martin and Petty (2000:70) believe that only by understanding the impact that decisions have on the value of the organisation, could a difference be made through VBM. This understanding can be achieved by creating a value map for the organisation. The intent of the value map is to highlight the linkages between the value drivers of the organisation and the value of the organisation. They believe that the value is the key to an economic road map for the organisation. As starting point, the value map creates focus on the stakeholder and organisational value needs that directs the development of the strategic objectives and desired outcomes of the organisation (Jack, 2002:2). Value maps have the ability to set direction and focus on the measures that will create value. Value maps also have the ability to explain all levels of detail within the organisation and integrates strategy and focus across business units, department, functions and teams (Jack, 2002:2).

The following is an example of a value map for financial value drivers:

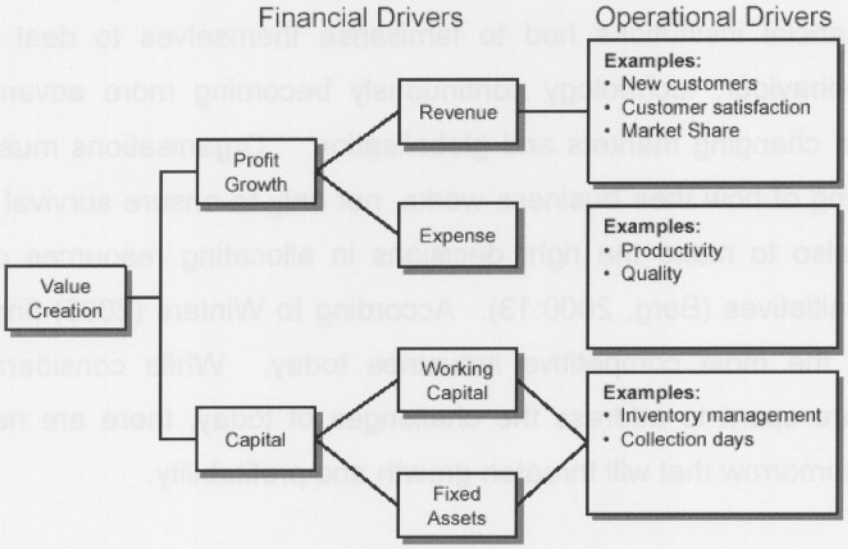
Diagram 3.5: Value Map Financial Drivers

<table>
<tr><td>Market Size</td><td rowspan="3">Revenues</td><td rowspan="7">Cash Profit</td><td rowspan="11">Cash Flow from Operations</td><td rowspan="12">Business Unit Value</td></tr>
<tr><td>Market Share</td></tr>
<tr><td>Sales Mix</td></tr>
<tr><td>Retail Prices</td><td rowspan="4">Operating Margin</td></tr>
<tr><td>Staffing Levels</td></tr>
<tr><td>Wage Rates</td></tr>
<tr><td>Tax structures</td><td>Taxes</td></tr>
<tr><td>Inventory</td><td rowspan="2">Working Capital</td><td rowspan="4">Investment required to Support Operations</td></tr>
<tr><td>Receivables/Payables</td></tr>
<tr><td>Plant life</td><td rowspan="3">Capital Expenditure</td></tr>
<tr><td>Maintenance</td></tr>
<tr><td>Scale of Operations</td><td rowspan="4">Discount Rate</td><td rowspan="4">Discount Rate</td></tr>
<tr><td>Cost of Equity</td><td rowspan="3">Cost of Capital</td></tr>
<tr><td>Cost of Debt</td></tr>
<tr><td>Leverage</td></tr>
</table>

(Source: Martin & Petty, 2000:69)

Harris (2002:5) believes that value trees are effective tools that break down value creation into the core value drivers. The following is an example of a value tree:

Diagram 3.6: Value Tree Financial Drivers



(Source: Harris, 2002:6)

3.3.4 Conclusion

By understanding the value drivers of an organisation managers can develop a forward-looking managerial tool that will predict the outcome of decisions based on the core value drivers of the business.

Both financial and non-financial drivers can be used in the performance contract with managers or executives. The analyses of the impact or sensitivity of a specific measure on the overall firm value can be used as a weighting basis to ensure that managers focus on those drivers that have the greatest impact on the overall value of the organisation. Through the analysis of the value-drivers, organisations can test the sensitivity of a specific value driver on the overall value of the organisation. Organisations can now assess which value driver has the greatest impact on the overall firm value (Martin & Petty, 2000:66).

In an interview by De Waal (2005:32) with Prof. Ken Merchant, Merchant views the use of value drivers as one of the best future measurement methods within a performance management system (De Waal, 2005:32).

3.4 Value-Based Management and Banking

It is critical to have a vision, direction and proper defined targets within a changing world. Financial institutions had to familiarise themselves to deal with changing customer behaviour, technology continuously becoming more advanced, declining margins and changing markets and globalisation. Organisations must have a good understanding of how their business works, not only to ensure survival during difficult times, but also to make the right decisions in allocating resources over a diverse number of initiatives (Berg, 2000:13). According to Winters (2005) financial services are one of the most competitive industries today. While considerable time and resources are spent to address the challenges of today, there are new issues and challenges tomorrow that will threaten growth and profitability.

Deregulation in financial markets, better educated customers, a plethora of information, new global entrants, technologies such as the internet and cellular phones are just a couple of example that are currently reshaping the financial industry. If financial institutions do not stay focused they can easily destroy value if they do not invest in the projects bearing the highest possible value for the organisation over the long term. It is therefore understandable that some of the first implementers of VBM were banks.

Lloyds TSB, Barclays and The Royal Bank of Canada are all using VBM to create shareholder wealth. Their results are impressive. The Royal Bank of Canada has increased their economic profit fivefold from 1996 to 2000 (Sharman, 2005:1).

For most organisations the budget processes are often a process of matching a top-down required corporate return, and a bottom-up consolidated shortfall from the various lines of business. Over and above the gap between the top-down and bottom-up processes, the various business units must also compete for scarce capital resources. This creates competition within the organisations, instead of focusing on the real competition - those outside (Sharman, 2005:2). The Royal Bank of Canada adopted shareholder value growth as the overarching goal of the organisation to overcome this. They use value metrics for strategic decisions, in product pricing, marketing and sales planning and even in the day-to-day alternative offered to customers. They also use economic profit, which includes the cost of using capital, to

overcome the shortcomings of traditional financial measures such as return on equity (ROE). The measure therefore guided management to increase shareholder value by (Sharman, 2005:4):

- Increasing net income, without additional capital requirements.
- Maximising value through the investment of projects with a positive net present value (NPV).
- Maximising capital efficiency by reallocation of capital employed.
- Improving the risk-profile.

According to Berg (2000:14) were the winners in the financial market those that obtain the art to increase revenue without increasing the cost. Managers within banks are required to weigh complex trade-offs between growth, return, and risk ensuring successful banking operations. During the past years, banks have adopted new metrics such as risk-adjusted return on capital (RAROC) and economic value added (EVA). Managers use these metrics to assist them in understanding and enabling them to make these complex and difficult decisions (Kimball, 1998:1). These metrics all share the same underlying principle of creating shareholder wealth. They are based on the principles of economic profit, rather than accounting earnings. By doing this, managers are forced to take into account the cost of capital or equity when they make decisions. The risk of business needs to be taken into account when calculating the cost of capital. Due to the size and nature of banking, there are different categories of risk associated with specific products, customers or transactions. According to Kimball (1998:3) businesses with different risk characteristics require different proportions of equity to achieve the same risk exposure. Because the various lines of business are associated with specific products, customers and transactions, these calculations should be extended from the lines of business to products, channels and customers. The different groups of products, customers and transactions will require different amounts of equity capital. The higher and bigger the associated risk, the more capital will be required.

A firm will earn economic profit to the extent that the earnings are more than the return it might earn on other investments (Kimball, 1998:2). Earnings will always be higher than the economic profit. An organisation can therefore be profitable in accounting terms, but unprofitable in an economic sense. If managers therefore focus on maximising accounting profits, they will focus on investing capital as long as the

marginal contribution to earnings is positive. By doing this, the economic profit of the capital invested last, would be less than the opportunity cost, and therefore they would destroy value. By doing this they would decrease the return on capital for investors. When a manager only invests capital when the return is greater than the opportunity cost, value would be created for shareholders.

When pricing customers, banks use complex propensity to default and other risk measures to determine the specific price for a customer. Banks would like to ensure that they receive the same return on capital from all customers, taking into account the risk associated with each customer. The more risky a customer, the higher the rate offered for any debt provided to the customer. These charges include cost of funds, charges for non-interest expenditure, a premium for credit-risk, and a capital charge. Thus, banks price individual loans in such a way, that they recover credit-risk and an adequate return on equity for shareholders. Barclays Bank implemented a performance measure for their staff called value aligned performance measurement (VAPM) providing their sales force with customer-level profitability information to assist them in managing for value. Through this they have transformed the original sales targets of more than 20 products to a single target: maximising value rigorously (Varley, 2003:16).

In the research done on value creation within the banking industry, the top performing companies suggest a seven-point agenda for senior managers (Sinn *et al.*, 2003:6):

- Organisations that focus meticulously on profitability and growth, can achieve superior value creation, even during economic recessions.
- Market expectations need to be thoroughly understood and actively managed for the organisation.
- Rather focus on the scale in specific business segments and not on the size itself.
- External growth opportunities need to be carefully assessed.
- To specialise will bring rewards at the cost of increased volatility.
- Portfolio management needs rethinking.
- Align the organisation to maximize value creation.

The financial services industry is not the "save and stable" environment it used to be. Banks need to ensure that they do not only provide superior value to their customers,

but also provide superior long-term value to their shareholders. To keep focused in a continuously changing environment, banks need to adopt the single goal of creating shareholder wealth. It is critical to cascade this down to all levels, especially where decisions are made.

3.5 Summary

Value-based management is not the panacea for corporate success. To reorganise an organisation to focus on value creation for shareholders requires time, resources and patience. The implementation of VBM within some organisations was a roaring success. The performances of their share price against their peers were evident over the last decade. Other organisations had mediocre success, whilst other abandoned the program after less than 5 years.

There is no guarantee that the attempt of an organisation to implement VBM will be a sounding success, but there are a couple of characteristics that, if present, will enhance the chance of success:

- Commitment to shareholder value creation from top management and the organisation at large – top management, after all, makes the final decisions. If they do not wholeheartedly support the program it will be a fruitless exercise. Employees within the organisation must also commit themselves to value creation. To effectively realise value creation, VBM must become part of the daily lives of employees, therefore they need to commit and support shareholder value creation.
- Linking incentive compensation to value creation – what you pay is what you get. If shareholders expect managers to act in their interest, they need to be rewarded for making the right decisions and taking the right actions. Compensation is a critical part of the VBM framework within an organisation.
- Training, education and communication – employees need to understand VBM, to be able to act in the interest of shareholders. For the program to be successful, considerable time and resources must be set aside to ensure that the right level of training is conducted for the specific groups of employees within the organisation. It is also critical to regularly update the employees on the status of value creation within the organisation to keep track and visibility.
- Customised VBM framework – each organisation differs in culture, the way it organises itself to make decisions, serve customers and adapt to market

changes. What worked in one organisation, will not necessarily work in another organisation. The VBM framework should be developed in such a manner that it takes cognisance of the specific characteristics and forces within the organisation.

- Business unit empowerment – organisations today consist of multiple business units each serving specific markets, segment and products. If the maximisation of shareholder wealth is the overarching goal of the organisation, these business units should be empowered to align themselves to the overarching goal of the company. Business units should be empowered to think like owners and act like owners.
- Keep it simple and broad – unsuccessful VBM organisations try to maintain complex VBM systems. Over and above the cost and difficulty to maintain these systems they are also difficult to understand. It is recommended that organisations keep their VBM system broad and simple, thereby ensuring that all in the organisations are not only included, but also understand and trust the information.
- The VBM circle – closing the loop – a successful VBM implementation will only happen if the learning from one year is fed back into the next year. Organisations need to continuously re-organise themselves to the market conditions and challenges. It is therefore critical that there is a continuous feedback mechanism within the VBM system.

Although the process of VBM implementation takes time and is difficult, there are significant benefits that organisations will realise:

- Better and smarter strategic decisions will be made.
- The employees of the organisation are dedicated to the sustainable long-term value of the organisation.
- The decisions and actions of employees are aligned to the organisation's goal of creating shareholder wealth.
- There will also be goal congruence between the various business units of the organisation through the single goal of creating shareholder wealth.

Day-to-day decisions are made at the lower levels within the organisation. It is therefore critical that VBM is cascaded to the lower levels within the organisation to ensure that the decisions taken are in line with the overall goal of the organisation. It

is not always easy to calculate value creation at the lower levels within the organisation. One of the key challenges is the allocation of capital to lower levels. To measure the success to create value of various business units and departments within the organisation, VBM proponents recommend the use of value drivers through value mapping. This implies that the organisational goal of shareholder value maximisation is broken down into the core value drivers, and each business unit would focus on the specific drivers that they have an impact on. There are two groups of value drivers:

- Financial drivers – financial drivers are lagging indicators of value, such as sales growth, cost to income ratio, etc.
- Non-financial drivers – these are leading indicators of value creation and are achievements today that have a considerable impact on the long-term value of the organisation.

Some of the first implementers of VBM were banks. Managers within banks are required to weigh complex trade-offs between growths, return, and risk ensuring successful banking operations. The usage of VBM information within decision-making helped The Royal Bank of Canada to increase shareholder value by (Sharman, 2005:4):

- Increasing the net income, without additional capital requirements.
- Maximising value through the investment of projects with a positive net present value (NPV).
- Maximising capital efficiency by reallocation of capital employed.
- Improving the risk-profile.

Financial institutions need to ensure that they price individual customers correctly to reflect not only the cost to serve, but also the cost of capital and a return that would compensate for the specific customer's associated risk profile. To survive within a continuously changing and complex environment, organisations need to prioritise their resources to those activities or projects that will provide the highest return with the associated risk. For the financial services industry it is not different. Shareholders within financial services companies are not different and expect the maximisation of shareholder value to be the primary focus within the organisation.

CHAPTER 4: THE THEORY OF VALUE-BASED MANAGEMENT AT CUSTOMER- AND PRODUCT LEVEL

"All customers are not equal, at least not when it comes to profitability. While total sales may follow the 80-20 rule, the curve for total profitability typically reveals that the most profitable 20 percent of customers generate between 150 percent and 300 percent of total profits. The middle 70 percent of customers about break even, and the least profitable 10 percent of customers lose 50 percent to 200 percent of total profits, leaving a bank with its 100 percent of total profits." (See, 2005)

4.1 Introduction

Previously many organisations did not have the ability to develop the required information on customer insight. Over the last couple of years organisations started to realise the quickest path to increase profitability and growth is to realise more value from loyal, high-value customers and to discover low-cost alternatives to serve the rest of the customer base (Skari, 2005:2). Organisations today provide various products and services to a wide range of customer segments. Each of these requires different amounts of capital - the more risk associated with a customer or transaction the higher the capital that is required (Kimball, 1998:1). To understand and act on the insights derived from measuring customer value will shape and determine everything an organisations sets out to do (Skari, 2005:1). Organisations that provide products and services over a lifetime to customers need to understand the underlying drivers of value for the organisation to enable decision-making that would create shareholder value over the long term.

The first primary goal of the research, the conceptualisation of VBM, is addressed within Chapters two to four. The following secondary goal is specifically investigated in Chapter 4 as discussed in paragraph 1.6 on page 9:

A.7. The need for VBM principles at the customer- and product level.

In this chapter the following will be investigated:

- VBM at the customer- and product level – in this section the reasons why it is critical for organisations to cascade VBM down to the customer- and product base are provided (paragraph 4.2 on page 100).
- Customer level VBM – in this section the use of VBM principles at the customer level will be investigated in more detail (paragraph 4.3 on page 105).
- Product level VBM – in this section the use of VBM principles at the product level will be investigated in more detail (paragraph 4.4 on page 115).

4.2 The Need for Value-Based Management at the Customer- and Product Level

The goal of VBM is to maximise shareholder wealth. Management needs to be able to make decisions that will create value for the organisation. Management also needs to know what are the value drivers of the firm. The firm's value estimation is based on the amount and timing of its free-cash flow (Martin & Petty, 2000:66). As mentioned in paragraph 2.6.1 on page 49, the free-cash flow is the amount of cash available to the investors, after the payments of cash expenses and operating investments. It is important for the management within an organisation to understand how their decisions will impact the free-cash flow in future. By analysing the impact of decisions on the future free-cash flow, a link can be established to determine the impact of a decision on the value of the organisation. Value drivers provide a direct link between financial decisions and the value of the organisation (Martin & Petty, 2000:68). It is also important for management to understand what drives the value drivers. As discussed within paragraph 3.3.3 on page 90, the intent of value mapping is to highlight the linkages between the value drivers of the organisation and the value of the organisation.

Banks believe more and more that any metric that does not take into account the potential value of clients, in the short-term and the long-term, is insufficient (Campbell, 2003). Banks are about relationships with customers, the short-term relationship is important, but more important is the long-term relationship with a client. Financial institutions must provide financial solutions through the various phases of an individual's life. If a bank wants to truly understand its value drivers, a bank needs to

understand how a customer contributes to the value drivers through the various stages of a customer's lifecycle. Customers can behave differently, and therefore banks must understand the usage of channels and products of each customer and how the customer's behaviour contributes or destroys value for the organisation. To be able to do this, banks need to understand the cost of each transaction and product of a customer. Understanding the drivers of costs are critical for banks, not to only influence their pricing strategies, but also understanding customer profitability. Customer profitability is behaviour-based. To be able to understand the long-term value of a customer, banks therefore also need to have an understanding of the potential lifetime value of a customer (Campbell, 2003).

According to Campbell (2003) there are a number of financial institutions focusing on customer profitability and VBM. Some of these institutions are Abbey National and Lloyds TSB that are well-known for their VBM implementations. Barclays recently also announced a measurement program based on VBM principles. The aim of the VBM programs within Barclays and Lloyds TSB is to align decision-making to shareholder value creation.

Just as VBM is part of the business lexicon today, so is customer-centricity (Harris & Kohli, 2000:2). The question arises if there is not conflict between a customer-centric organisation and an organisation that chooses shareholder value maximisation as their primary goal? According to Campbell (2003) there are examples of banks in the world that use customer profitability and value-related information to direct their campaigns and investments into their customer relationship strategy. According to Harris and Kohli (2000:2) the ultimate goal of a customer-centric organisation is to make money. Harris and Kohli believe that customer centricity should increase the revenues from customers or decrease the cost to serve the customers or both. To achieve this, organisations need to understand the underlying behaviour drivers of each customer and product group and how that impact on the value creation within the organisation. Harris and Kohli (2000:2) have grouped the strategies into four categories:

- Acquisition – the focus is to acquire new customers.
- Growth – the focus is to increase the revenue from the existing products held by existing customers.

- Multi-growth – the focus is to increase the number of product groups held by existing customers.
- Cost model – the focus is to lower the cost to serve customers without reducing the service quality materially.

The focus of VBM is to maximise shareholder wealth. This implies that each and every individual within the organisation must understand how he or she creates value within the organisation. Within the financial services industry relationship-, product- and segment managers have to make daily decisions on the pricing offered, the structuring of products and delivery through various channels to specific customer groups. To be able to make decisions that would focus on value creation it is critical for these managers to have information available to base their decisions on.

Organisations should have the intention for customers to have smart and appropriate interactions with the organisation irrespective of the channel they use. To be able to meet this and to increase profitability, financial institutions should do the following (Winters, 2005):

- Applicable and personalised intelligence should be available about individual customers.
- The detailed knowledge should be available and used across the organisation.

In paragraph 3.2 on page 74, the key characteristics of a successful VBM implementation were determined as:

- Commitment to shareholder value creation from top management and the organisation at large.
- Linking incentive compensation to value creation.
- Training, education and communication.
- Customised VBM framework.
- Business unit empowerment.
- Keep it simple and broad.
- The VBM circle – closing the loop.

To be able to focus on shareholder value maximisation it is critical for the financial services industry to take VBM down to the lower levels within the organisation. To

realise value creation at the lower levels within the organisation, the critical success factors of VBM ought to be implemented at the customer- and product level of the organisation. It is here, after all, that the following decisions are made:

- What price will the company offer to the customer, taking into account the cost to serve, the capital required and the risk associated with the customer?
- What product would the company like to offer to this customer?
- What is the preferred channel to serve this customer that would yield the best return?
- What discounts are the company prepared to give upfront, to retain or gain the customer for the long term?

Various organisations try to cross-sell as many possible products to customers, thereby increasing the number of accounts. This can result in the unprofitable use of new products and/or the cannibalisation of profitable transactions on the existing product base (Winters, 2005). Organisations therefore need to understand the underlying value drivers within the customer and product base. Information on customers regarding demographics, lifestage, account history, buying behaviour and market trends, to name a few, should be incorporated to understand the best product holding both from a customer's value perspective but also from maximising the share of wallet for the organisation. This means that the customer has benefited from the product and it is also profitable over the long-term for the organisation. It is crucial for organisations to develop information such as customer lifetime value to make decisions that would support value creation within the organisation (Winters, 2005).

According to Famulla and Wassink (2005) customer insight create economic value for the organisation. The typical economic drivers of customer insight are (Famulla & Wassink, 2005):

- Increasing the number of preferred customers.
- Increasing the sales per customer through cross-selling of existing product and services or new products.
- Decrease the acquisition, servicing and administrative cost through realising efficiencies.
- Customer retention – lengthening the relationship.

This implies that organisations have customer insight on:

- The preferred customers, not only from a current profitability perspective but also over the long term.
- The preferred products (new and existing) that should be sold to the specific customers to not only increase short-term profitability, but also maximising the long-term value for the organisation.
- The underlying cost drivers for selling, servicing and maintaining the customers, and how that can be minimised without having a negative impact on the service levels.
- Understanding the underlying behavioural drivers that have an impact on the relationship with the preferred customers, to maximise the length of the relationship.
- VBM also incorporates the cost of capital with the associated risk; it is therefore important to understand for all of the above the cost of the required capital and the cost of the associated risk to derive to the true value of each customer and product.

Operational, tactical and strategic level decisions are made on a daily basis at all levels within the organisation that have an impact on customers and the products they have as well as the transactions they perform. To have a successful VBM implementation, organisations should not only focus on creating measures at an organisational or divisional level, but should also focus on creating VBM metrics that reflect the core value drivers at the customer- and product level within the organisation.

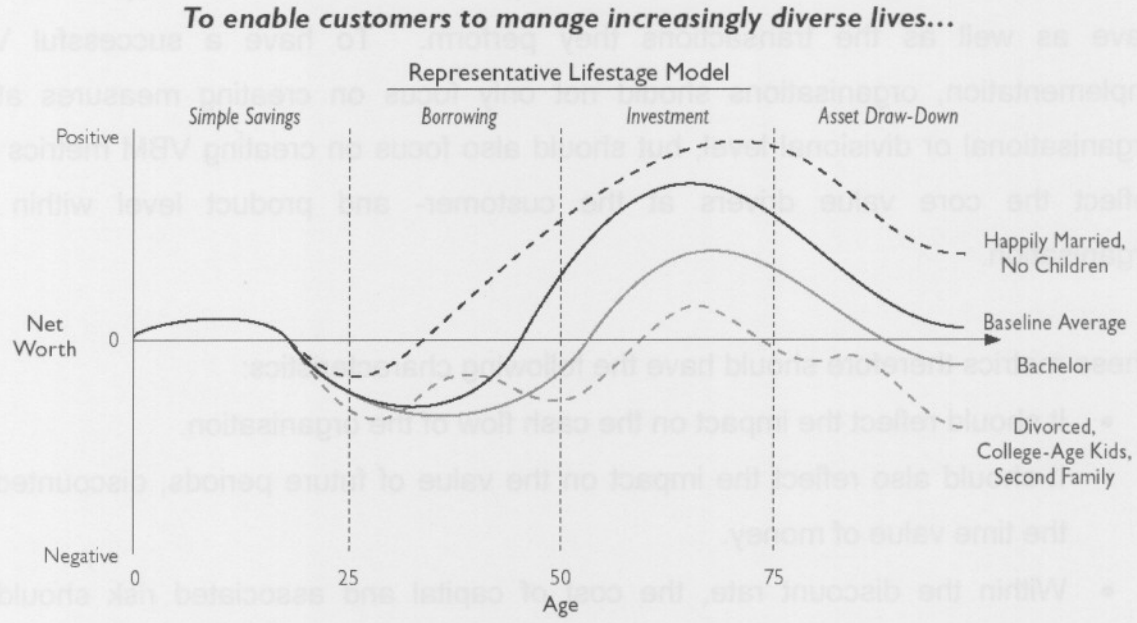
These metrics therefore should have the following characteristics:

- It should reflect the impact on the cash flow of the organisation.
- It should also reflect the impact on the value of future periods, discounted for the time value of money.
- Within the discount rate, the cost of capital and associated risk should be included to reflect the true value of the customer or product over a lifetime.

4.3 Customer Level Value-Based Management

Financial services are about long-term relationships with customers. The behaviour of customers will change as the circumstances of the customer change. The challenge for financial institutions is to understand the different lifestages of the customers and to offer products and services that would generate maximum value for the organisation over the long-term. The measure that is used to determine how successful an organisation is, defines the vision and strategy of the organisation (Hughes, 2003). If an organisation uses market share as the primary measure, the organisation can probably increase market share, but the question arises whether value is created for the shareholders? According to Hughes (2003) many retailers have the perception that sales and discounts are the keys for success. In actual fact, it may ruin the organisation. Financial institutions should focus their strategy on retaining preferred customers through their lifestages as well as providing the preferred products to a customer at the specific lifestage.

Diagram 4.1: Customer Lifestages

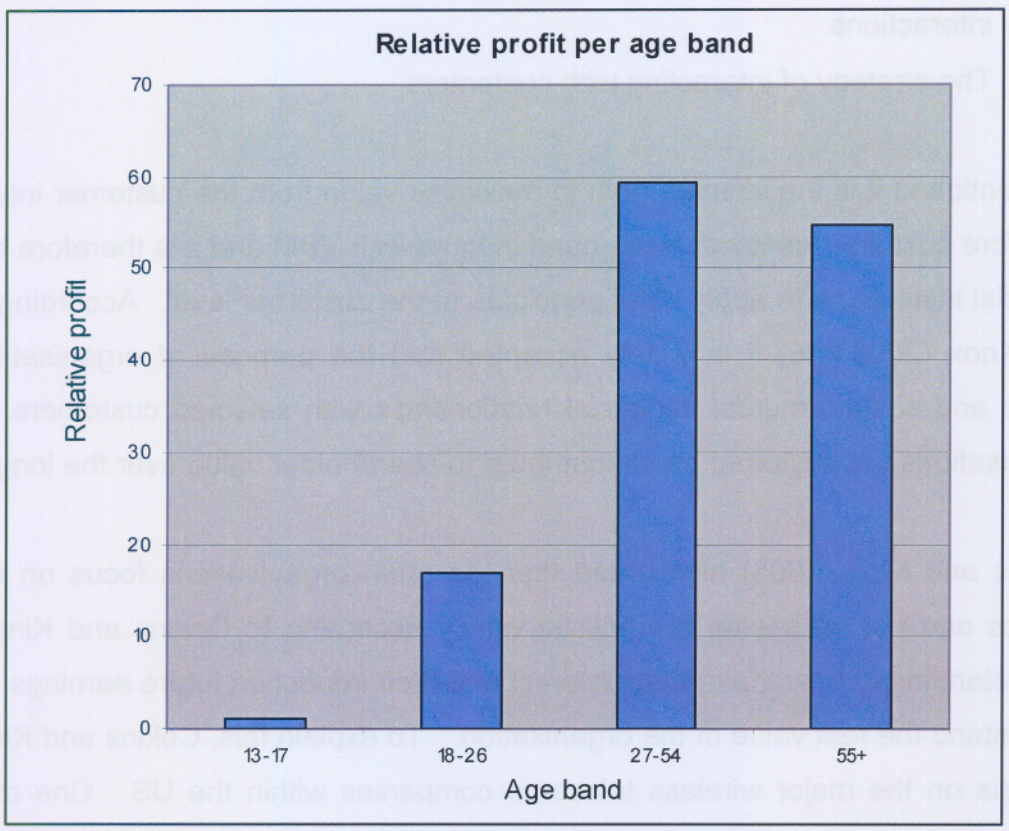


(Source: Corporate Executive Board, 2004a:vi)

Diagram 4.1 provides an indication of the possible lifestages of four different types of customers and how their needs for savings, borrowing, investment and asset

drawdown change with age. Various demographical factors have an influence on the financial needs of a customer through his or her lifetime. To understand the future value of a customer the needs in terms of products and services through these lifestages need to be predicted for a customer. It is critical to understand the needs of a customer to ensure that the most valuable product or service from both the customer's perspective and the bank's perspective is offered. Financial services are relationship-based and it is critical for banks not only to understand the potential value of a customer but also to lengthen the time span of the relationship. To focus only on the current profit contribution of customers is not enough; organisations can make decisions that would be to the detriment of the long-term value of the organisation. A good example is the youth segment. By focusing only on the current profit of this segment, organisations can decide not to invest sufficiently into this segment due to the low marginal contribution of this segment compared to other segments. As these customers migrate to other segments they will become more profitable in the future.

Diagram 4.2: Segmental Relative Profitability per Customer



(Source: FNB Internal Data, Own research)

Diagram 4.2 above provides the relative profitability per customer for four segments based on age. Segment 13-17's profitability per customer is used as base (the profit

per customer for this segment = 1). By not investing sufficiently in the segment 13-17 the bank might lose the potential of earning higher revenues at later lifestages.

Cokins and King (2005) stated that it is not sufficient to just understand the current profitability. For some customers their future value could be quite sizeable. According to Cokins and King decisions should rather be based on the potential value of a customer than the current profitability of a customer. This requires trade-offs between short-term profit goals and long-term shareholder value goals. Managers therefore need to be rewarded for creating long-term shareholder value for the organisation, rather than short-term profits. By applying VBM principles at the customer level will organisations be less likely to decide in favour of short-term profits versus incurring extra cost for future growth prospects.

The orientation of customer-centricity comprises of two aspects (Harris & Kohli, 2000:2):

- The objectives an organisation would like to realise from its customer interactions.
- The strategy of interacting with customers.

As mentioned it is the ultimate goal to maximise value from the customer interactions, therefore customer-centricity goes hand in hand with VBM and it is therefore critical for financial institutions to apply VBM principles at the customer level. According to Ryals and Knox (2005:456) it is widely accepted that the purpose of organisations is to create and sustain mutual beneficial relationships with selected customers. For the organisations the customer must contribute to shareholder value over the long-term

Cokins and King (2005) highlighted that too often organisations focus on individual metrics and not on seeing the holistic view. According to Cokins and King are the understanding of how the metrics interact and their impact on future earnings crucial to understand the real value of the organisation. To explain this, Cokins and King did an analysis on the major wireless telecoms companies within the US. One of the key measures within the telecoms companies is the cost per gross add (CPGA). The CPGA is an industry method that is calculated by dividing the sum of the selling, marketing, handset and accessory subsidy costs by the new subscribers during a period that is known as the gross add (Nextel, 2001:2). This cost excludes any cost

not related to initial customer acquisition cost and also cost associated with retaining customers. The following table is the CPGA of the respective companies:

Table 4.1: Cost per Gross Add (CPGA)

Provider	Cost per gross add (CPGA)
Nextel	$567
US Cellular	$410
Verizon Wireless	$383
T-Mobile	$356
AT&T Wireless	$350
Cingular	$315
Sprint	$280

(Source: Cokins & King, 2005 - adapted)

From table 4.1 above it can be seen that the CPGA of Nextel is double the CPGA of Sprint. The assumption therefore can be made that Sprint is the most cost-effective in obtaining new customers. However the revenue realised from the customer base is ignored in this measure. The following table reflects the average revenue per user for each of the companies:

Table 4.2: Revenue per User

Provider	Average revenue per user
Nextel	$72
Sprint	$62
AT&T Wireless	$59
T-Mobile	$54
Verizon Wireless	$51
Cingular	$51
US Cellular	$48

(Source: Cokins & King, 2005 - adapted)

In table 4.2 above, despite the high CPGA of Nextel, it has the highest revenue per user. The CPGA of Nextel (refer to table 4.1 above) is double the CPGA of Sprint but

the revenue per customer of Sprint is also the second highest. From tables 4.1 and 4.2 on pae 108 it seems that Sprint is not only cost-effective in obtaining new customers, but have the second highest revenue per customer. Both the CPGA and the revenue per customer are single period measures. Telecoms companies, just like banks, subsidise customers initially to realise value over time. Handsets and accessories are subsidised initially and are recovered from the revenue over the length of the contract.

The following table reflects the lifetime of a customer for each of the companies:

Table 4.3: Average Lifetime in months per User

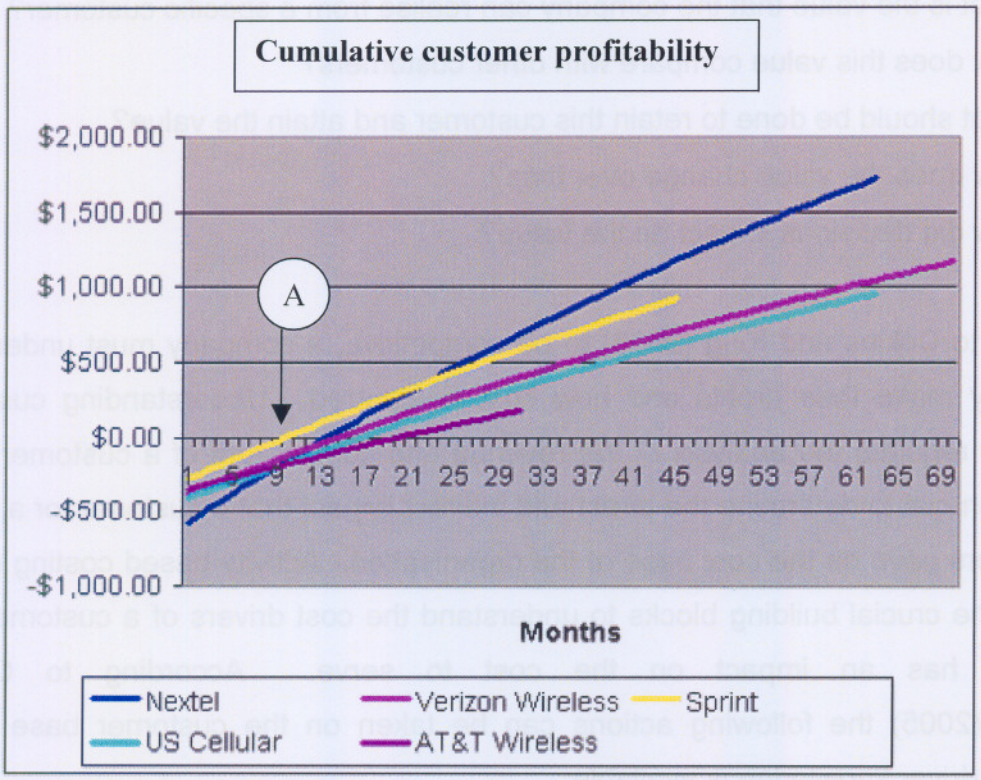
Provider	Average lifetime in months
Verizon Wireless	69
Nextel	62
US Cellular	62
Sprint	44
Cingular	37
T-Mobile	33
AT&T Wireless	30

(Source: Cokins & King, 2005, adapted)

Despite Verizon Wireless' lower revenue per customer, it has the highest average customer lifetime in months with Nextel and US Cellular jointly second highest. It is a known fact that it is cheaper to retain an existing customer than to acquire a new customer (Cokins & King, 2005). According to Hughes (2003) long-term customers are different from short-term customers; they tend to buy more regularly, the cost to serve is lower and they have higher retention rates.

Each of the diagrams provides a different perspective of how the companies compare relatively to their peers for each of the measures. Unless these measures are viewed holistically, no meaningful comparisons on how the company performs can be made. The following diagram depicts customer profitability over the lifetime for each of the companies:

Diagram 4.3: Cumulative Customer Profitability over Lifetime



(Source: Cokins & King, 2005, adapted)

In diagram 4.3 above the profitability incorporates all the measures as well as the cost to serve and the cost of capital (Cokins & King, 2005). Diagram 4.3 represents the cumulative customer profitability over the expected lifetime of the user. In this diagram a better holistic picture of the respective companies can now be formed. Meaningful analysis of the individual companies can now be conducted, such as (Cokins & King, 2005):

- The higher revenues and longer lifetime value of Nextel justifies the higher marketing spend.
- Although the break-even of Sprint (Point A on diagram 4.3) is at 9 months (the earliest of all the companies), the short lifetime requires Sprint to incur more CPGA-related cost than those of Nextel.

Customer lifetime value (CLV) is a crucial metric to provide a holistic understanding of the various drivers at a customer level that have an impact on the overall value creation within the organisation. Understanding customer value will impact and steer the actions of an organisation. CLV provides the worth of a customer now, based on predicted future transactions and costs (Ryals & Knox, 2005:458).

According to Skari (2005:3) customer value must address the following core questions:

- What is the value that the company can realise from a specific customer?
- How does this value compare with other customers?
- What should be done to retain this customer and attain the value?
- How does the value change over time?
- How did decisions impact on the value?

According to Cokins and King (2005) to be competitive, a company must understand where they make their profits and how cost is incurred. Understanding customer profitability requires the analysis of the revenue and cost drivers of a customer. It is therefore crucial to determine the direct and indirect impact that a customer or a group of customers have on the cost base of the organisation. Activity-based costing (ABC) is one of the crucial building blocks to understand the cost drivers of a customer and how that has an impact on the cost to serve. According to Cokins and King (2005) the following actions can be taken on the customer base if the underlying driver knowledge is available:

- Decrease the cost to serve per customer.
- Introduce new charges or re-price expensive cost to serve activities.
- Introduce more profitable products and services to existing customers.
- Abandon non-profitable products and services.
- Focus on efficiencies, not only realising efficiencies on business processes but also providing discounts for more businesses to lower cost to serve customers.
- Focus on up-selling or cross-selling of higher margin products to the existing customers.

According to Hughes (2003) the lifetime value of a customer is the net–present value (NPV) of the profit that should realise for an average customer for a set number of years. The management of NPV on the customer base should be one of the key measurements. According to Cokins and King (2005) customer lifetime value is a tool that can be used not only to understand the potential value of customers and how they impact the core value drivers of the organisation, but can also assist in making decisions where trade-offs need to be made between short-term profits and long-term investment for future growth prospects. Customer lifetime value is therefore a view of

potential value creation in the future. As mentioned in paragraph 4.2 on page 104, the customer lifetime value calculation should reflect the following:

- The impact on the cash flow of the organisation.
- It should also reflect the impact on the value of future periods, discounted for the time value of money.
- Within the discount rate, the cost of capital and associated risk should be included to reflect the true value of the customer or product over a lifetime.

According to Ryals and Knox (2005:458) CLV is a forward-looking measure that is consistent with the underlying principles of shareholder value creation. The mathematical equation to calculate customer lifetime value is:

Formula 4.1: Customer Lifetime Value (CLV)

$$CLV = CTA + \sum_{t=0}^{t=T} \frac{R_t - C_t}{(1+i_t)^t}$$

CLV	= Customer lifetime value	CTA	= Cost to acquire
R	= Revenue	C	= Cost
t	= Time period	i	= Interest rate

(Source: Cokins & King, 2005)

CLV also takes into account the attrition rate of a group of customers. Retention modelling is one of the key drivers within the customer lifetime value calculation (Hughes, 2003; Cokins & King, 2005). According to Cokins and King the future stream of revenue and cost should be adjusted to reflect the attrition rate of customers. This implies that (R_t – C_t) should be multiplied by the customer retention rate from the previous year.

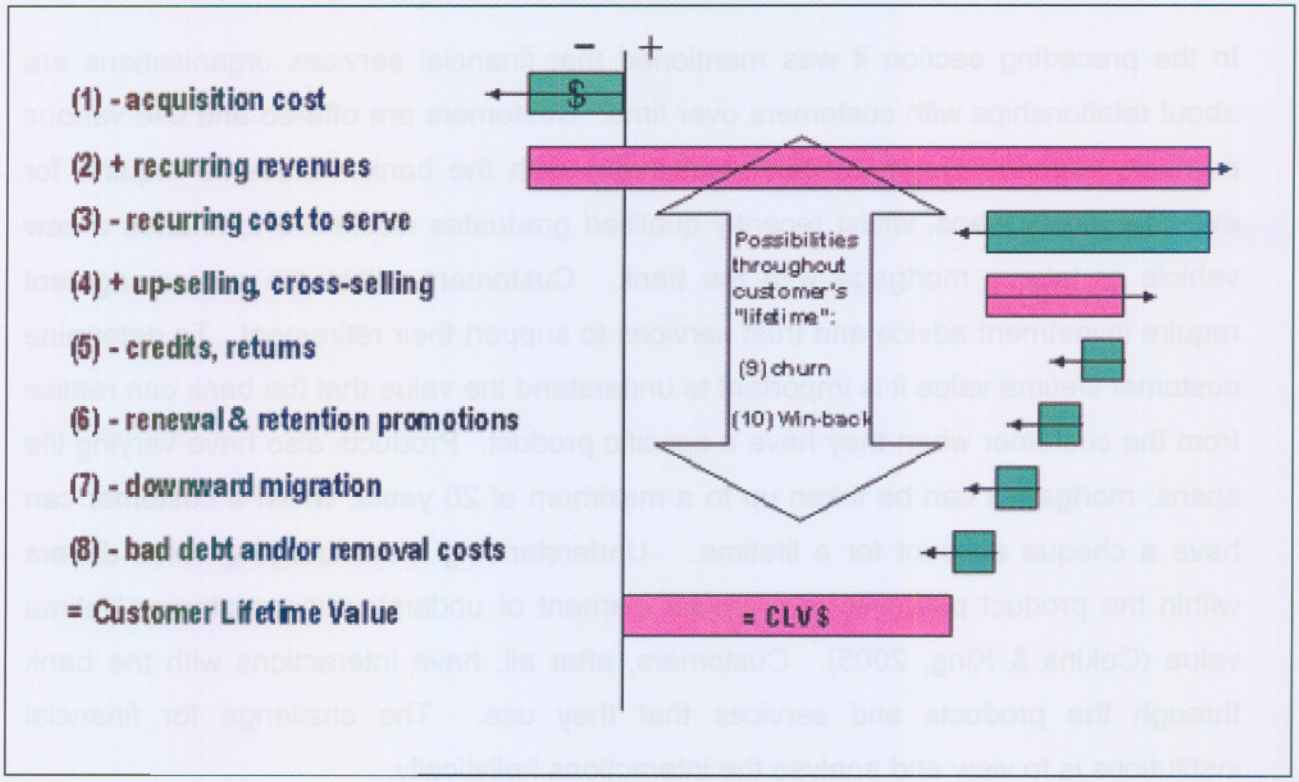
According to Collins (2003b:2) the lifetime value calculation requires the following potential predictive models:

- Predicted length of relationship or attrition rate of the customer base. The challenge is to calculate the retention rate for individual groups of customers. The retention rate can vary significantly from segment to segment.

- Predict the future product holdings. Customers interact with the bank through the utilisation of products and services during the different lifestages. It is therefore important to understand the potential value that can realise through these relationships.
- Potential to maximise the share of wallet. Financial institutions continuously diversify their product holding and are now providing a broader financial portfolio to customers. Customers are also often multi-banked and the challenge for financial institutions is to determine the possible size of wallet of the customer and how the organisation can leverage the maximum value from it.
- The expected use of current and future products. This includes predicting the cost and revenue of the customer through the products that he or she utilises.
- Potential risk. Models need to predict the potential risk of the customer as the risk profile of the customer can change over time.
- Expected success of migration plans. Organisations need to consider the impact of the migration of customers to other products and services to fully understand the impact that this will have on the overall value of the organisation in the future.

Diagram 4.4 on page 114 depicts ten revenue and cost elements that determine the customer lifetime value and can be viewed as some of the core value drivers of the organisation:

Diagram 4.4: Revenue and Cost Elements of Customer Lifetime Value



(Source: Cokins & King, 2005)

The usage of VBM concepts at the customer level is critical for organisations that choose the maximisation of shareholder wealth as their primary goal. For managers to be able to make decisions that would benefit long-term shareholder value, they require information at a customer level. It is also important for managers to understand how a customer adds to the overall value of the firm holistically. According to Collins (2003a:2) the understanding of customer lifetime value is critical in developing effective marketing, sales and service strategies that would have a positive impact on the bottom-line of the organisation. Customer lifetime value modelling therefore needs to reflect the potential value that an organisation can realise from a customer over a given period of time. The calculation not only needs to forecast the possible lifestage of the customer with its potential product holding, but also the impact of this on the cost, revenue and capital basis of the organisation. Coupled with this it is also important to apply an attrition rate within the calculation. The usage of customer lifetime value information at the customer level, takes VBM practically down to the customer level.

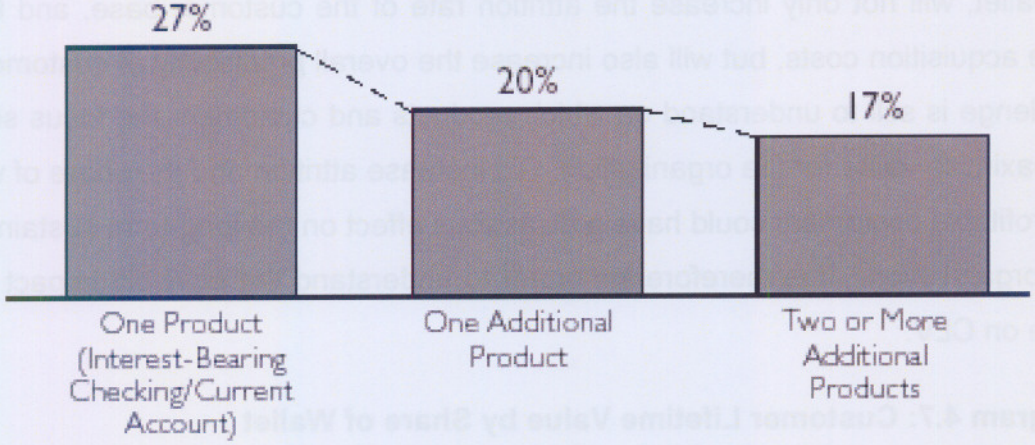
4.4 Product Level Value-Based Management

In the preceding section it was mentioned that financial services organisations are about relationships with customers over time. Customers are offered and use various products over the length of their relationship with the bank. Students require, for example, study loans, whilst recently qualified graduates would like to finance a new vehicle or take a mortgage with the bank. Customers within the senior segment require investment advice and trust services to support their retirement. To determine customer lifetime value it is important to understand the value that the bank can realise from the customer when they have a specific product. Products also have varying life spans; mortgages can be taken up to a maximum of 20 years, whilst a customer can have a cheque account for a lifetime. Understanding the underlying value drivers within the product portfolios is a crucial element of understanding customer lifetime value (Cokins & King, 2005). Customers, after all, have interactions with the bank through the products and services that they use. The challenge for financial institutions is to view and analyse the interactions holistically.

Barclays Bank introduced VAPM (value-added performance measurement) to their sales force, replacing the previous more than 20 individual product targets with a single target to maximise value (Varley, 2003:16). Sales staff now focus on the opportunity to increase the share of wallet, and are not only focusing on increasing the number of products held by customers, without taking into account the additional value realised for the organisation. Sales staff within Barclays can now decide which product will realise the greatest potential to increase the value of the customer. To enable this, it is important to understand the relative value contribution of the various products and services.

According to the Corporate Executive Board (2004b:1) the share of wallet is the number of products a customer has with one bank. In research conducted by the Corporate Executive Board (2003:4) it was found that there is a direct correlation between the number of products held by a customer and customer attrition rates (refer to diagram 4.5 on page 116):

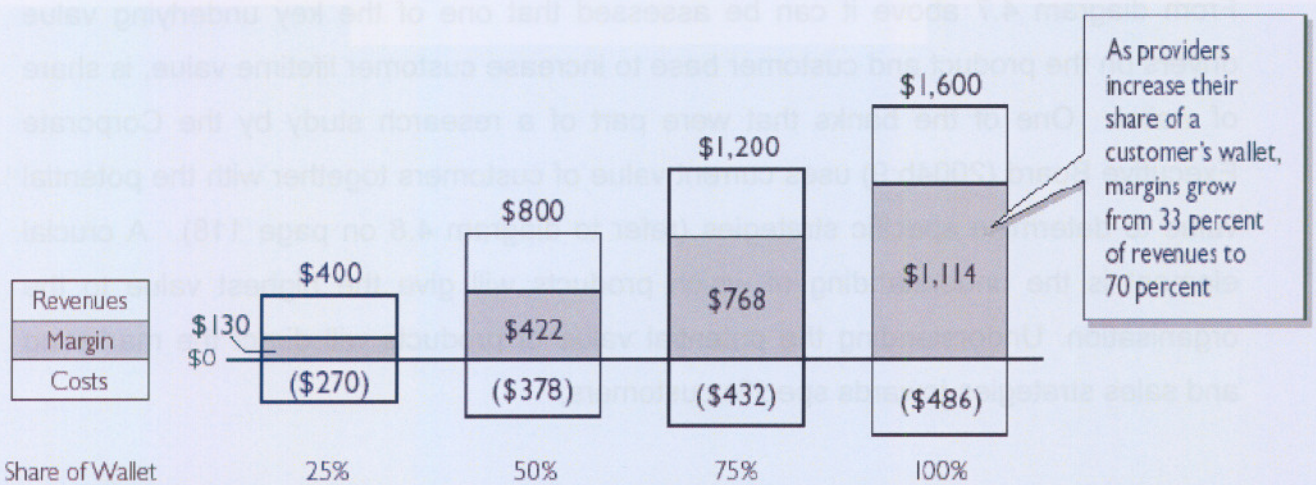
Diagram 4.5: Customer Attrition by Product Holding



(Source: Corporate Executive Board, 2003:4)

In research conducted by the Corporate Executive Board (2004b:2) on share of wallet (refer to diagram 4.6 below), it was further found that banks realise that the increase in the share of wallet (a term used within the financial services to indicate how entrenched an organisation's product offering is with customers) will have a positive impact on the profitability of a customer:

Diagram 4.6: Estimated Customer Profitability by Share of Wallet



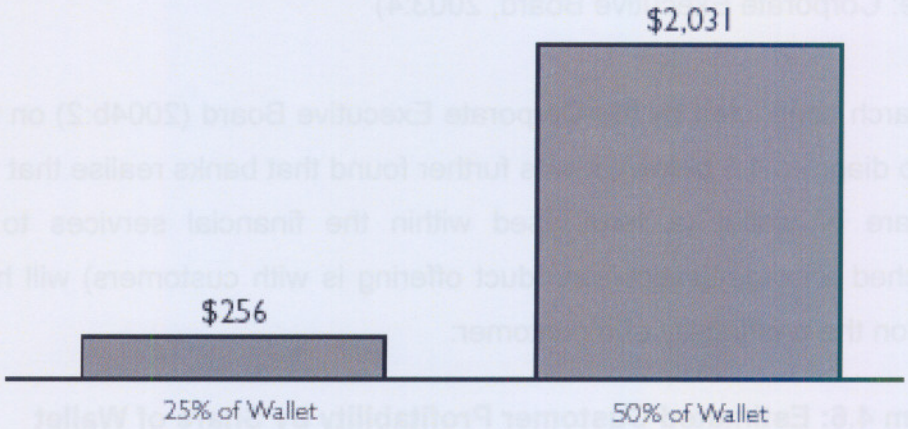
Assumptions:

- Per-customer revenues of 25% share of wallet and proportional thereafter
- Costs associated with servicing additional share of wallet: 80% fixed & 20% variable

(Source: Corporate Executive Board, 2004b:2)

From diagrams 4.5 and 4.6 on page 116, organisations that focus on increasing share of wallet, will not only increase the attrition rate of the customer base, and therefore save acquisition costs, but will also increase the overall profitability of customers. The challenge is still to understand on which products and customers the focus should be to maximise value for the organisation. To increase attrition and the share of wallet on unprofitable customers could have a disastrous effect on the long-term sustainability of the organisation. It is therefore important to understand the possible impact that this have on CLV.

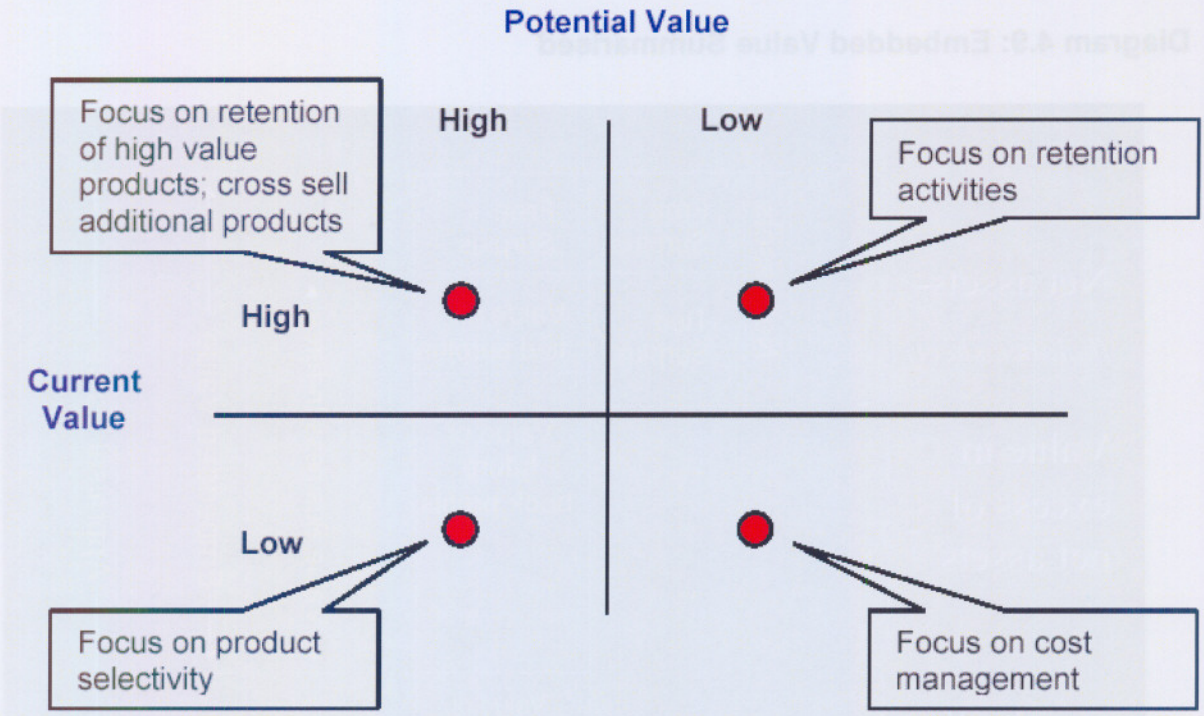
Diagram 4.7: Customer Lifetime Value by Share of Wallet



(Source: Corporate Executive Board, 2003:4)

From diagram 4.7 above it can be assessed that one of the key underlying value drivers on the product and customer base to increase customer lifetime value, is share of wallet. One of the banks that were part of a research study by the Corporate Executive Board (2004b:9) uses current value of customers together with the potential value to determine specific strategies (refer to diagram 4.8 on page 118). A crucial element is the understanding of which products will give the highest value to the organisation. Understanding the potential value of products will direct the marketing and sales strategies towards specific customers:

Diagram 4.8: Marketing Strategies for Customers based on Value



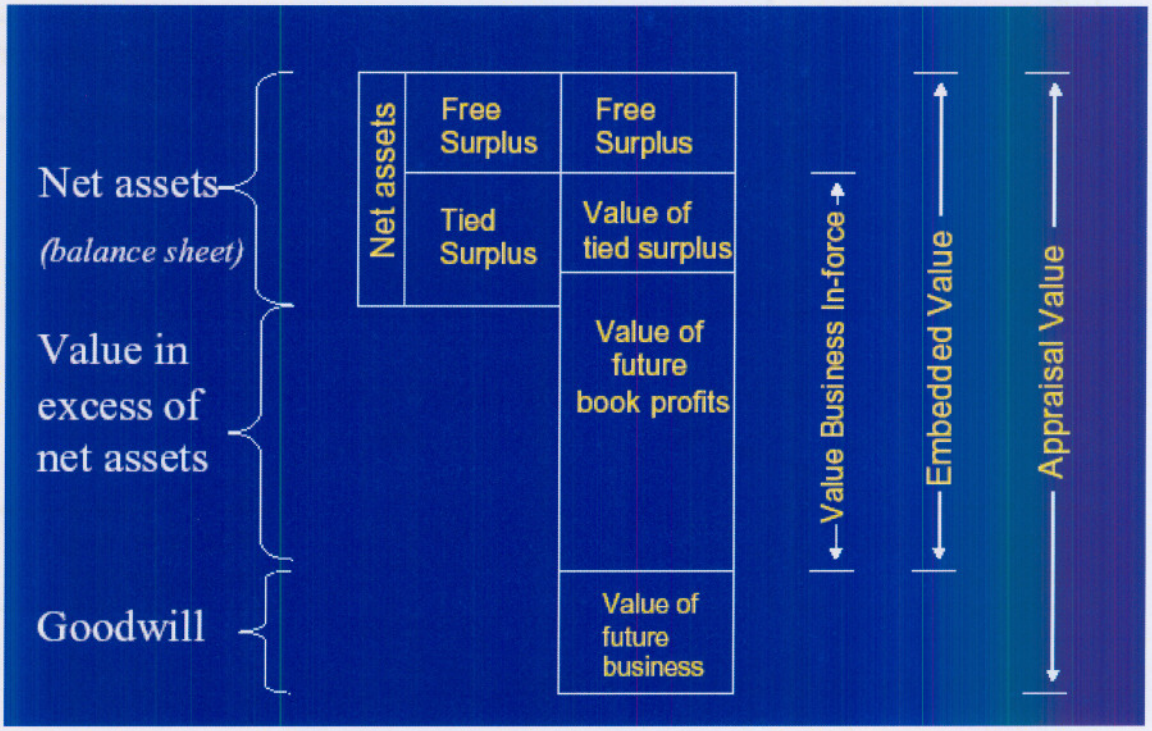
(Source: Corporate Executive Board, 2004b:4)

Another challenge for organisations is how to analyse and report high acquisition costs for new business. High acquisition costs can skew the profitability of the organisation due to the high expenditure in one period, but the annuity income that would only realise in future periods (Skandia, 2003). Currently FNB HomeLoans have this skewed picture. FNB HomeLoans have shown a declining profit of 15.3% for the past financial year, but the new business has grown by 91% that resulted in a huge increase in mortgage origination costs (FirstRand, 2005:15).

One of the methods to provide a value perspective of products within an organisation is embedded values (EV). As defined in paragraph 2.6.7 on page 63, EV is a method that reflects the future shareholder profits in the life insurance business. The EV equals the free surplus cash flows plus the value of in-force business (Skandia, 2003).

EV can be depicted as follows:

Diagram 4.9: Embedded Value Summarised



(Source: Kuys, 2000:15)

From Diagram 4.9 above EV can be defined as:

EV = Value of in-force business[1] + Shareholders' Free Surplus[2] (Kuys, 2000:15)

Notes:

1 - The value of in-force business is the value of required or tied capital plus the present value of future book profits (Risk Management Metrics Subgroup, 2003:5).

2 - The Shareholders' Free Surplus is the excess of the shareholders' equity over the required capital (Risk Management Metrics Subgroup, 2003:5).

EV's are traditionally used within the insurance industry to determine the economic value of existing business. To analyse the distributable profits of an organisation for only a year, or a couple of years may not provide a "true" long-term value perspective of the organisation. To acquire new business, companies incur additional costs and need to set aside additional capital. If a company experiences a high growth in business, this would result in a decline in profits, but over the longer term an increase in the value of the company.

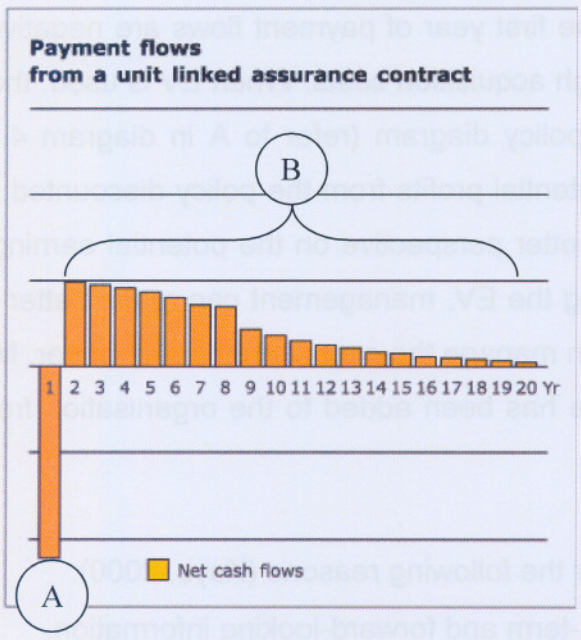
According to the Risk Management Metrics Subgroup (2003:3) is the purpose of performing EV calculations the following:

- The provision of value related information of the organisation to analysts and the investment community.
- Information that can be used to manage the organisation, especially understanding where value is created or destroyed.
- To provide information on the value added of new business during the past year.
- To provide information on the sensitivity that market and risk exposures have on the EV of the organisation.

According to Skandia (2003) EV's are calculated by determining the present value of future surpluses, that consists of a forecast of yearly results, costs to manage, inflation, growth and mortality to name a few.

The following diagrams can explain the underlying principles of EV:

Diagram 4.10: Payment Flows of a Unit Linked Insurance Product

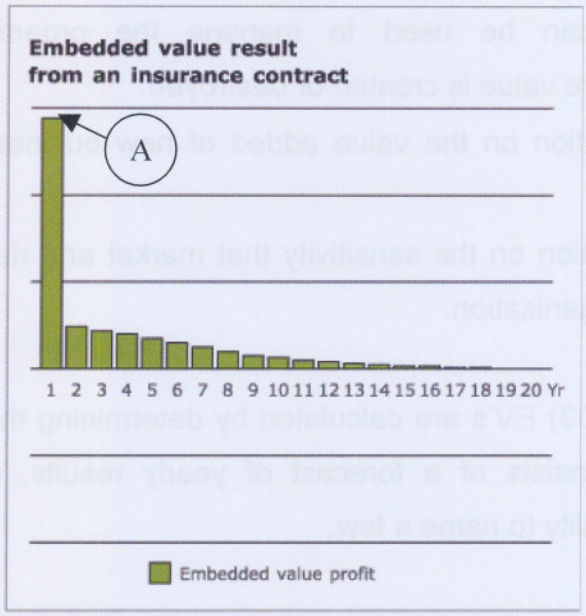


(Source: Skandia, 2003)

From diagram 4.10 above the high acquisition cost makes the policy unprofitable in year 1 (point A), and thereafter makes profits every year (point B). If a business was expanding and have large growth or a high take-up rate of policies, the business will

show declining profits, while they actually added value for the shareholder over the long-term. The following diagram explains the EV of the policy:

Diagram 4.11: Embedded Value of an Existing Contract



(Source: Skandia, 2003)

Diagram 4.11 above provides a total different perspective than diagram 4.10 on page 120 for each period. The first year of payment flows are negative in diagram 4.10 on page 120 because of high acquisition costs. When EV is used, the value is the highest in the first year of the policy diagram (refer to A in diagram 4.11 above). The EV represents the future potential profits from the policy discounted to the present value. EV's provides a much better perspective on the potential earnings of an organisation over time. By measuring the EV, management can make better decisions on pricing, the cost to serve and can manage the overall profitability better. Management can also determine whether value has been added to the organisation from its sales activities (Skandia, 2003).

ING Group uses EV's for the following reasons (Kuys, 2000):

- EV's provide long-term and forward-looking information.
- It is a tool that is consistent with shareholder value maximisation.
- Cost of capital is reflected within the information.
- It can be used as a basis to manage assets and liabilities.
- It is an early warning if value is destroyed within the organisation.
- It is used for pricing decisions.

Although EV's are principally used within the insurance industry, it can also be applied within other industries as a management tool. EV's within the banking industry can be applied to any product or service where the value is created over more than one period. The sale of such a product or service therefore represents a term-related relationship (e.g. the relationship between a cheque account holder and the bank) and not a once-off experience (e.g. VISA travellers cheques cashed by an oversees visitor at a branch). The majority of products and services within the banking industry fall into the former category. Therefore, the application of EV's within the banking industry is both possible and is a valuable management tool to direct and control the long-term economic value of the company.

4.5 Summary

On a daily basis various strategic, tactical and operational decisions are made that have an impact on the products a company offer to customers or groups of customers. Financial institutions are about providing various products to customers over a lifetime. Not all customers have the same behavioural patterns. It is therefore a known fact that the 20/80-principle can be applied on an organisation's customer base where 20% of customers create more that 80% of the profits. Organisations today realise that the quick road to superior value is to increase the share of wallet from valuable customers and to find ways to decrease the cost to serve of less valuable customers. Customer- and product profitability do not provide a holistic view of the potential value of a specific product or customer over a set period. Customer- and product profitability do not incorporate the cost of capital and associated risk that can differ from customer-to - customer and product-to-product. For organisations to be value creators it is imperative to apply VBM principles at the customer- and product level for decision-making and rewarding.

A challenge for financial institutions is to view a customer holistically. A student today can be a doctor tomorrow. Banks therefore need to predict future lifestages of a segment of customers and the products and services they would require. Customer lifetime value analysis provides a forward-looking long-term perspective of the customer's relationship with the bank through the various lifestages. Customer lifetime value analysis provides information to managers on how a customer add or destroy value, and it also provides the ability to understand how the value of the customer will change if the underlying value-drivers change. This information can assist

organisations to determine where to follow acquisition strategies, cross-selling strategies, cost containment strategies or hybrids of these strategies. Customer lifetime value predicts future cash flow adjusted to the net present value by the cost of capital that incorporates the associated risk of a customer or segment and is therefore a true VBM metric.

Throughout a customer's different lifestages he or she will use various products and services. Some of these products can span across various lifestages of the customer. A customer's interactions with the institution are through the various activities that he or she performs through the use of the product. Banks therefore need to understand the long-term value that can realise through time that the customer uses the product. Financial institutions have a considerable upfront cost to acquire new business. It is therefore important to understand the long-term value of a product to ensure that the organisation is earning the expected required return to create shareholder value over the long-term. EV's are currently used especially within the insurance industry. The EV of an organisation is the present value of in force business plus the shareholders' free surplus. EV's are therefore a forward long-term analysis of the potential returns from a product. The adjustment of return to reflect cash flows is incorporated within the calculation as well as the discounting of future cash flows to the present value using the cost of capital and the associated risk of the asset or liability. EV's are therefore a true VBM metric and can be successfully applied within the banking industry.

CHAPTER 5: VALUE-BASED MANAGEMENT WITHIN THE ORGANISATION

> **"Value-based management has captured the interest of the corporate and investment communities"** (Ryan & Trahan, 1999:47)

5.1 Introduction

To become a value creating organisation it is imperative that each and every employee is committed to create value through his or her decisions and actions on a daily basis. VBM has been part of the business lexicon for a couple of years. The various proponents of VBM proclaim that VBM will assist the organisation to achieve the following goals (Starovic *et al.*, 2004:22):

- It creates goal congruence internally and externally through the single objective of creating shareholder wealth.
- It overcomes the agency theory through the alignment of the actions and decisions of employees and the strategy of the organisation.
- Employees are dedicated to the long-term sustainability of the organisation in creating shareholder wealth.
- It assists in focusing management on the core value drivers.
- The metrics are powerful tools to use for measurement and comparatives for benchmarking.
- It assists in allocating resources to what matters most – value creating activities.

The purpose of the research was to understand the current business targets managers use, the information and measures used to measure the success of the business and to relate this back to the benefits that VBM offers to organisations.

In chapter 5, the results from the research conducted within FNB to establish the current level of knowledge and use of VBM within the organisation and also the need for VBM-related information are provided.

The second primary goal of the research is addressed within chapter 5 as discussed in paragraph 1.6 on page 9, namely:

B: To determine the use of and exposure to VBM and related principles within the organisation.

In this chapter the information from the research are structured as follows:

- Background to the research – in paragraph 5.2 on page 126 the history, cultural and organisational background of the organisation are provided. Information on the research methodology that was followed is also provided.
- Research findings – in paragraph 5.3 on page 130 the research findings are presented and discussed:
    - Demographics of the respondents – in paragraph 5.3.1 on page 130 the demographical information of the respondents is discussed.
    - Key drivers for business success – in paragraph 5.3.2 on page 132 the results from the research on the key drivers for business success are provided.
    - Information used to measure success – in paragraph 5.3.3 on page 134 the information used to measure these key drivers are provided as well as how important the information is.
    - Information used for decision-making – in paragraph 5.3.4 on page 137 the information used for decision-making is provided. The confidence with this information is also provided.
    - Organisational challenges – in paragraph 5.3.5 on page 139 information is provided on challenges within the organisation. The aim of this was to determine whether the respondents agreed or disagreed with contextual information regarding VBM from the literature research to determine whether there is a need for VBM within the organisation.
    - Importance of core VBM principles – in paragraph 5.3.6 on page 140 the results from the research on the respondents' view of how important the individual components of VBM (cash flow, cost of capital and time value of money) within a measurement tool are provided.
    - Current level of exposure and perception of VBM – in paragraph 5.3.7 on page 141 the current level of exposure and the perception of the respondents of VBM are provided.

- Interpretation of results – in paragraph 5.4 on page 144 the results presented in paragraphs 5.3.2 – 5.3.7 are further analysed and brought into the context of the literature research.

The following secondary goals are addressed in Chapter 5:

B.1: To understand the most prominent measures or tools used at the various levels of the organisation for decision-making and scorekeeping.

B.2: To determine the importance of the information and tools used.

B.3: To determine the level of exposure to the concept of VBM and the perception respondents have about VBM.

5.2 Background to the Research

5.2.1 Organisational Background

First National Bank can trace its origins back to 1838. During the twentieth century the then National Bank of South Africa Limited became a subsidiary of Barclays Plc. During 1986 Barclays sold off its banking investment within South Africa. This resulted in the formation of First National Bank of South Africa Limited, a wholly owned South African entity listed on the Johannesburg Stock Exchange. In 1998 the financial interests of Rand Merchant Bank Holdings and Anglo-American were merged to form FirstRand Limited. Through this transaction FNB became a wholly owned subsidiary of FirstRand and are trading as a division of FirstRand Bank Limited. First National Bank has branches throughout South Africa and provides full banking services (FNB, 2005).

FirstRand Limited, the holding company of FNB, is a truly fledge financial service group through its ownership of FNB, Momentum, Rand Merchant Bank, Outsurance, Wesbank and Discovery Health. FirstRand is structured as a confederation of profit centres, with its roots in an entrepreneurial culture (Dippenaar, 2005).

FNB is structurally organised into various clusters. There are currently seven clusters, and six of these clusters focus on specific segments. They are:

- Mainstream segment – banking solutions to customers earning less than R60k per year.

- Consumer segment – banking solutions to customers earning from R60k to less than R750k per year.
- Wealth segment – banking solutions to customers earning R750k or more per year.
- Commercial segment – banking solutions to the agric-, business- and medium corporate segments.
- Corporate – strategic and transactional banking solutions to the wholesale market.
- Public Sector Unit – banking solutions to the national government departments, provincial and local government, state-owned enterprises and quasi-government agencies.

The seventh cluster is the Branch Banking cluster that manages the branch infrastructure of FNB that is used by the customers of all of the above segments. Within each of the seven clusters various product, channel and support business units form part of the cluster, but provide services to the rest of FNB.

5.2.2 Research Methodology

There are various research methodologies available. According to Wisker (2001) the research will dictate the research methodologies used. The methodologies chosen will strengthen the work and methods used to collect data. Quantitative research are normally used when the researcher measures variables and verifies existing theories or question those theories, whilst qualitative research answers the understanding of meanings, beliefs and experience (Wisker, 2001). According to Trochim (2004) research design can be viewed as the structure of the research that holds the elements in the research project together. According to Trochim (2004) there are three broad types of research designs.

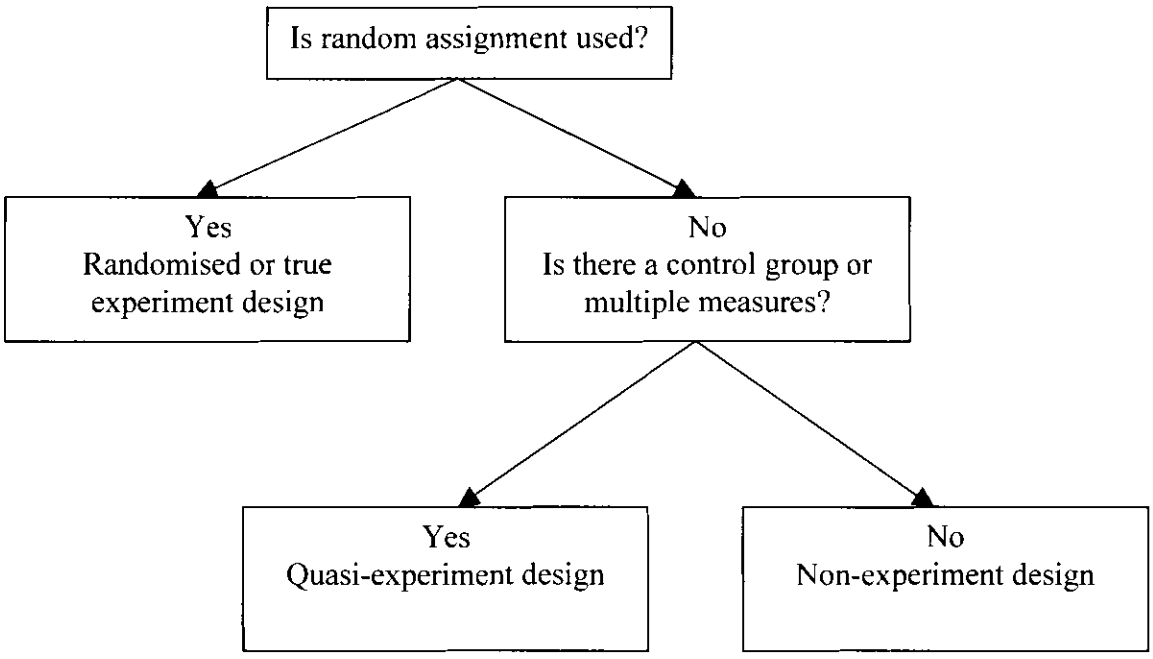
- Randomised or true experimental design is the strongest design and is used especially when cause-and-effect relationships are tested within the research, e.g. experimental research. Specific causal hypothesis is tested within experimental research.
- Quasi-experimental design is typically used when comparative research is done on two groups, who are perceived but not proven to be similar. In this design it is assumed that there is an underlying knowledge of the research problem. In

quasi-experimental research averaging is made possible through the use of a representative sample of the population.

- Non-experimental design or exploratory research is used when little or no information is available regarding the research problem.

The differences between the three designs are based on two questions. The following diagram depicts this:

Diagram 5.1: Research Design



(Source: Trochim, 2004)

The purpose of this research questionnaire (refer to annexure A on page 198) was to understand the information that is currently used for business performance measurement and decision-making and the importance of such information. Within the literature research so far the various proponents had specific opinions regarding traditional accounting and related measures. The intention is to determine how important those measures are within FNB compared to some of the VBM measures. From the research, assumptions can be made regarding the need of VBM-related information within the organisation. The second part of the questionnaire focused on the current awareness of VBM principles within the organisation. The various managers within FNB could have been exposed through various means to VBM, and might have an already formed opinion of VBM. This information can assist in the determination of the receptiveness to a concept of VBM within the organisation.

The type of research for this questionnaire is the quasi-experimental design. A quantitative research through the use of electronic mail surveys was used after consultation with the Statistical Consultation Services of the North-West University (Potchefstroom Campus). The Statistical Consultation Services indicated that a return of more than 30% would be acceptable. The respondents that completed the survey would form the sample of the population. The quantitative research paradigm was appropriate for the questionnaire research since the aim was to determine the quantitative usage and the degree of comfort that the respondents have with traditional measures and VBM. The variables and areas of research were known from the experience and exposure that the researcher had within the organisation as well as from the literature research. Within the set parameters the opportunity were given for respondents to provide information on unknown variables.

5.2.2.1 Population and Sample

The population comprised of the middle to senior level managers within the organisation. All managers at FNB Exco level and Cluster Exco level were included, plus the financial managers and information managers at key business unit level. The population therefore included managers representing the business at either the FNB Exco level, the various Cluster Exco levels or some Business Unit Exco levels. A total of 92 individuals were identified.

The questionnaire was sent out to 92 individuals within FNB. A total of 34 questionnaires were received back and were used as the sample base, giving a return rate of 37%. The number of questionnaires received at the return date of 15 August 2005 was 19 (21%). A reminder was sent out to the respondents. An additional 15 questionnaires were received, giving the total response rate of 37%.

5.2.2.2 Data Collection and Recording

The empirical research was conducted through the use of a questionnaire (refer to annexure A on page 198) that was sent to the various respondents electronically. The individuals had six weeks to complete the questionnaire. The answers to the questions were multichoice where individuals only had to tick the appropriate box. For most of the questions the interviewees were able to add information that they felt were relevant to questions within the set guidelines. This gave the flexibility within the questionnaire to collect unknown information to be added to the research outcomes.

The aim of the questionnaire was not to necessarily discover unknown variables pertaining to the various metrics used, but rather focusing on what information is used, the importance of such information and the perception regarding the information. The objective is to determine the need and receptiveness of VBM within the organisation, therefore the choice to limit open-ended questions.

The individuals had the choice to complete the questionnaire electronically or by hand and then to return the questionnaire electronically (if completed electronically) or through the internal mail of FNB. They also had the choice to provide their personal information such as name and e-mail address and whether they would like to receive feedback from the research results.

5.2.2.3 Data Preparation

The researcher created a single database and the answers for each questionnaire were captured per question. Additional information supplied by the respondents was included in the database under the relevant question. The database information per question was then analysed. To minimise the effect of capturing errors the researcher used within the database quality checkpoints that checked if there was no response from a respondent for a specific question. For each question, graphs were also drawn to show the distribution of the answers received. This assisted to determine possible capturing errors.

5.2.2.4 Data Analysis and Interpretation

The data from the questionnaires were organised and analysed per question. Continuous checks of related topics within the various questions were then analysed to determine trends and also to test the accuracy of information. This provided the ability to view the data into larger coherent wholes. The analysis of information was based on the frequency that a specific variable was chosen.

5.3 Research Findings

5.3.1 Demographics of the Respondents

Introduction

The respondents were asked in question 1 and 2 (refer to annexure A, questions 1 and 2 on page 200) to complete demographical information on their position within the

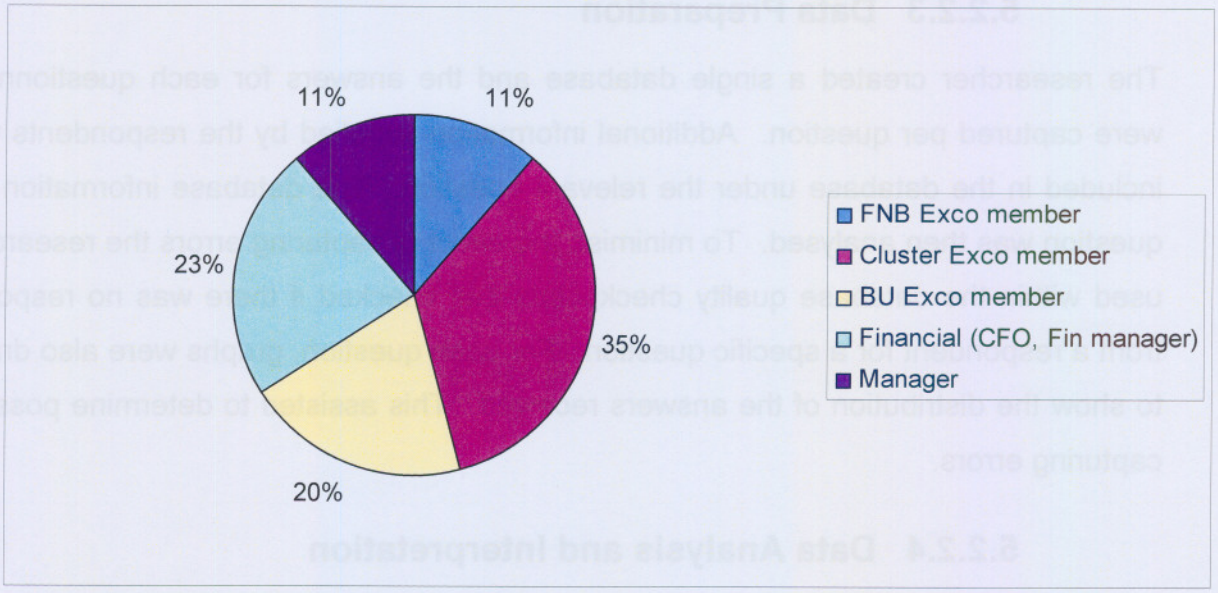
bank and the line of business they are part of within the bank. The intention to incorporate these questions were twofold:

- To ensure that the sample represents the identified population; and
- To determine if there are differences in the results based on the individuals' level or line of business. During the testing of the results no major shifts in opinions could be drawn based on the respondents' position within the bank or the line of business.

Results

The results of question 1 and 2 are presented in diagrams 5.2 below and 5.3 on page 132.

Diagram 5.2: Organisational Position



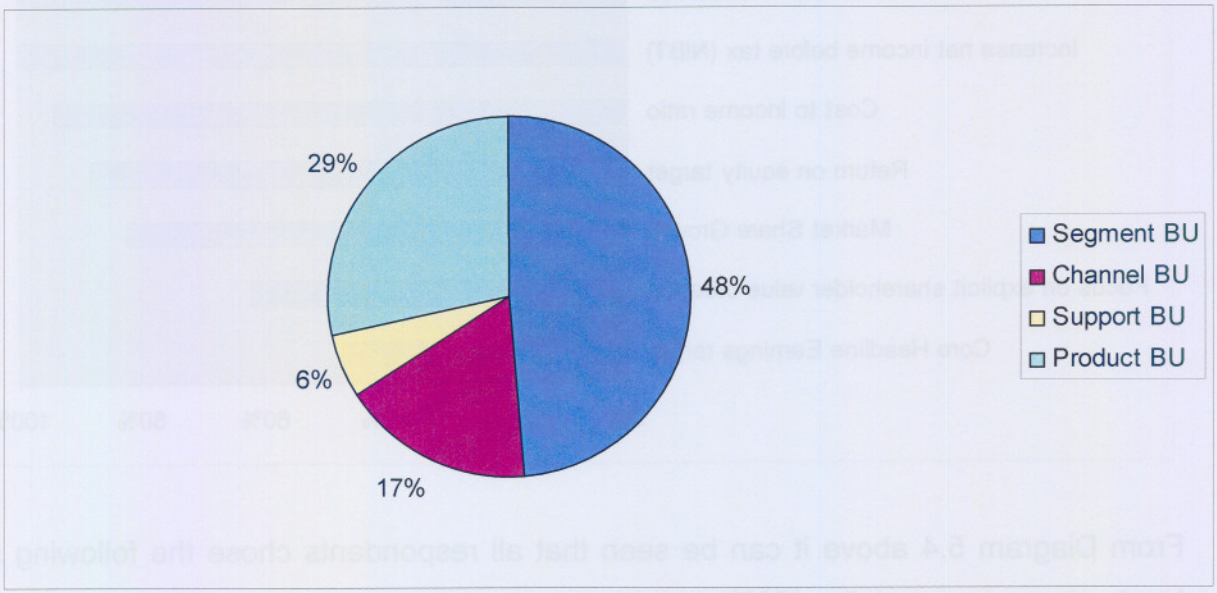
From diagram 5.2 above the majority of respondents are Cluster Exco members (35%), with the second highest return from financial managers (CFO's, etc.). Feedback was also received from BU Exco members (20%), FNB Exco members (11%) and other managers (11%). From diagram 5.2 above it is evident that the responses received represented various organisational positions within the bank. Although the number of respondents was the lowest at FNB Exco level, it is important to note that the population at the FNB Exco level is the smallest.

The bank can be viewed broadly into 4 lines of business:

- Segmental business units – they focus on the effective delivery of financial solutions to specific segments, e.g. Wealth Segment, Commercial Segment, etc.

- Channel business units – they focus on the effective delivery of specific channels to the FNB customer base, e.g. Branch Banking, Internet Banking, etc.
- Product business units – they manage the provision of specific product or product groups to the various segments, e.g. HomeLoans, Cheque Accounts, etc.
- Support business units – they provide support functions to the rest of the bank, e.g. Finance, Technology, etc.

Diagram 5.3: Line of Business



From diagram 5.3 above the majority of respondents are part of segment business units (48%). The second highest response was from respondents in product business units (29%). Responses were also received from channel business units (17%) and support business units (6%). From diagram 5.3 above it is evident that responses were received from all four lines of business. 65% of respondents were either from a segmental business unit or a product business unit. This supports the application of the results to the third goal of the research, where the application of VBM at customer- and product level are investigated.

5.3.2 Key Drivers for Business Success

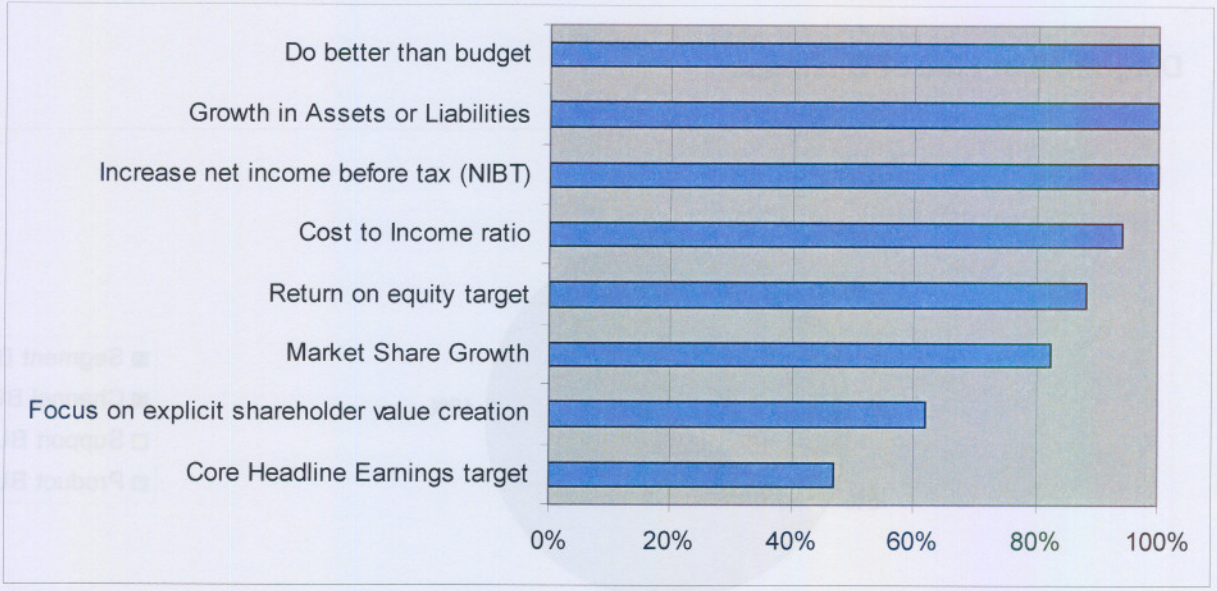
Introduction

The respondents were asked in question 3 on page 201 to indicate what their key business targets are and to rate the importance of those targets. The aim of this is to determine the current key business targets within FNB.

Results

In diagram 5.4 below, the use of a key business target is represented by the frequency a specific target is chosen by the respondents. If all respondents chose the target as a key business target, it would be 100%.

Diagram 5.4: Key Business Targets



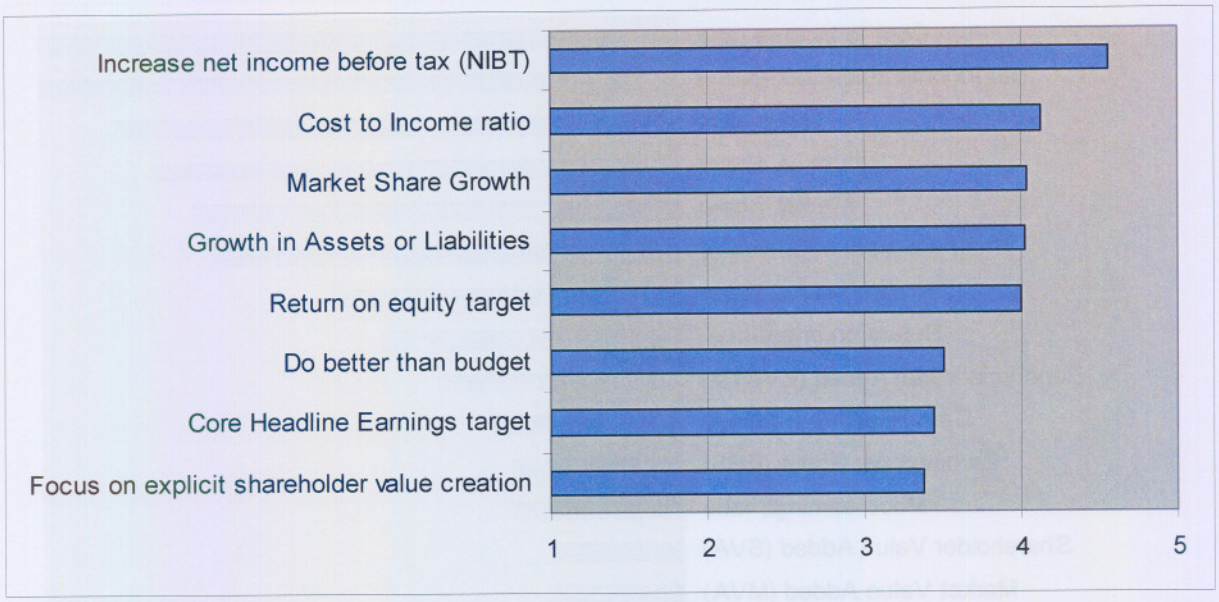
From Diagram 5.4 above it can be seen that all respondents chose the following as key business targets (all = 100%):

- Increase net income before tax (NIBT);
- Growth in assets and liabilities; and
- To perform better than budget.

Just more than 90% choose cost to income ratio, a key measure within the banking industry, as a key business target. Just less than 90% of the respondents choose return on equity as a business target and with just over 80% choosing market share as a target. Only 60% choose explicit shareholder value focus as a key business target with just under 50% of respondents using core headline earnings as a key business target.

In question 3 on page 201 the respondents were also asked to rate the importance of each metric used, where 1 is not important and 5 is critical. In diagram 5.5 on page 134 the average rating by the respondents is provided. The average rating represents the average of respondents that are using (refer to diagram 5.4 above) the specific target as a key business target.

Diagram 5.5: Importance of Business Target



From diagram 5.5 above the respondents viewed increase in net income before tax (NIBT) the most critical, followed by the cost to income ratio averaging just above 4. Market share growth, growth in assets or liabilities and return on equity target all received an average rating around 4 from the respondents using these targets, indicating that they are of high importance to them. Do better than budget, core headline earnings and the focus on explicit shareholder wealth creation all received an average rating around 3.5, indicating that these targets are not critical but still important for the respondents using them as key business targets.

5.3.3 Information Used to Measure Success

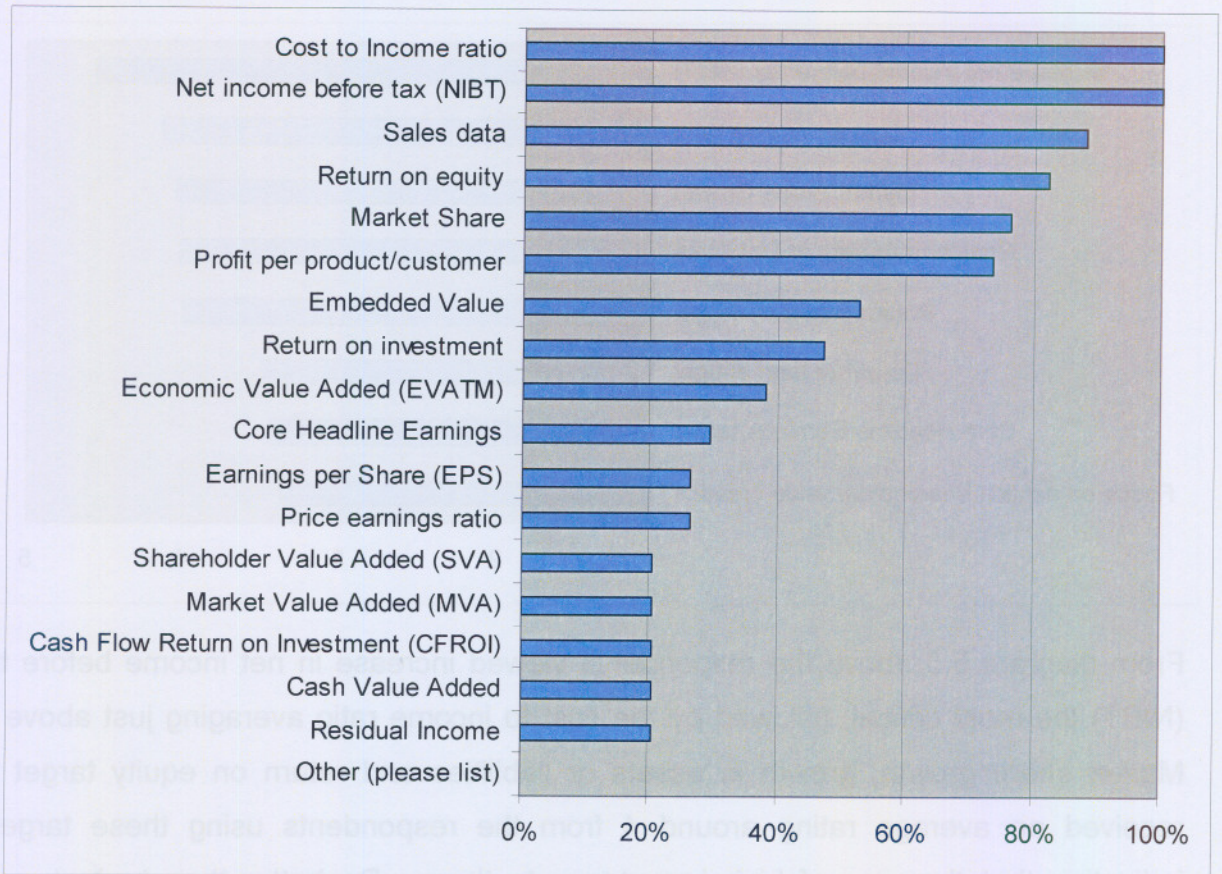
Introduction

In question 4 on page 202 the respondents were asked what metrics or information do they use to measure the success of their business. The aim of this question was to determine what information is used to measure the success of a business unit and how important the information is.

Results

In diagram 5.6 on page 135 the use of information is represented by the frequency of a chosen item by the respondents. If all respondents chose the information item as being used, it would be 100%.

Diagram 5.6: Information Used

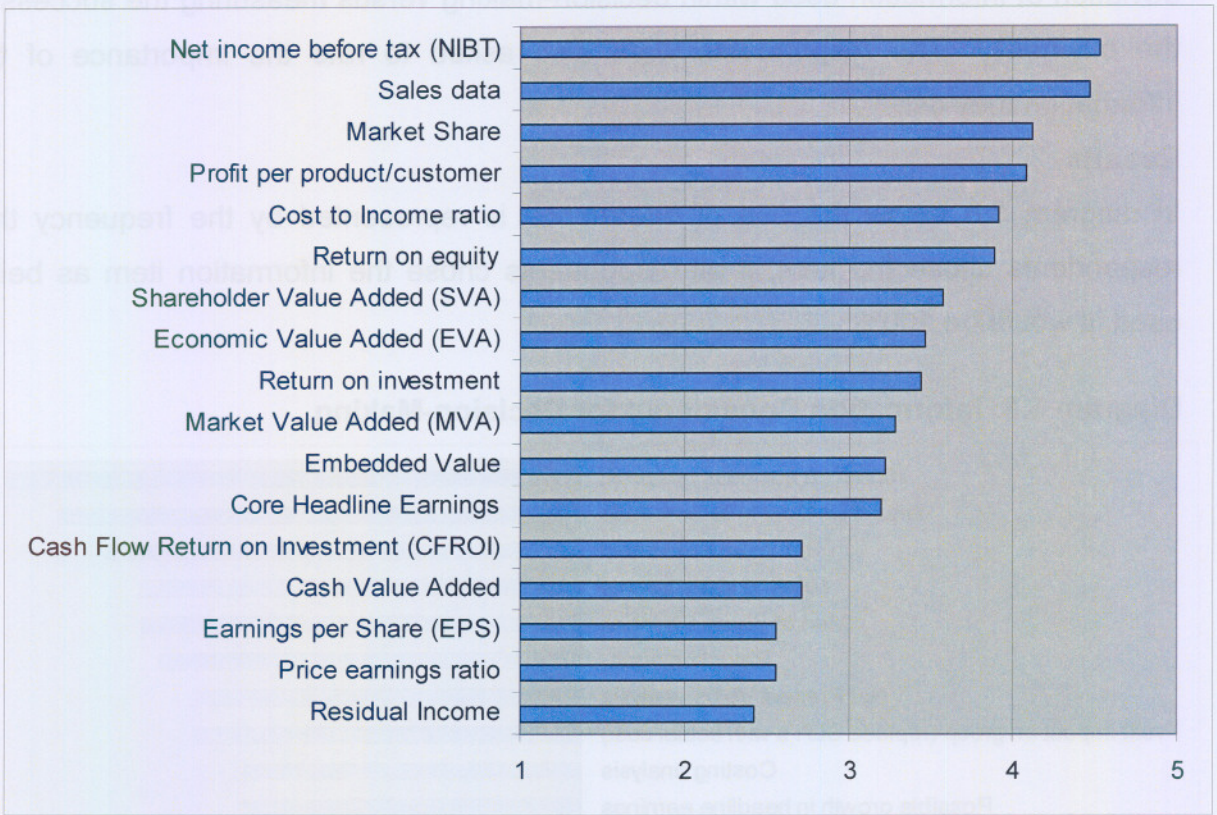


From diagram 5.6 above all the respondents use cost to income ratio and net income before tax (NIBT) as information to measure the success of their business unit. This is followed by sales data (just under 90%), then return on equity (just above 80%). Market share and the profitability of product and customers are used by between 70% and 80% of respondents. Embedded value scored the highest (just over 50%) of all the VBM metrics (embedded value, economic value added, shareholder value added, market value added, cash flow return on investment and cash value added). From diagram 5.6 above it is evident that VBM metrics are in general not used extensively within the organisation. Other financial metrics that were used by less than 50% of the respondents are return on investment (just below 50%), core headline earnings (just below 30%), earnings per share (below 30%) and the price earnings ratio (below 30%). The predecessor of most VBM metrics is residual income (refer to paragraph 2.6.1 on page 52). Residual income information is used by only 20% of the respondents to measure success, similar to most of the VBM metrics.

The respondents were asked to rate the importance of the information they use, where 1 is not important and 5 is critical. In diagram 5.7 on page 136 the average rating by

the respondents are provided. The average rating represents the average of respondents that are using (refer to diagram 5.6 on page 135) the information to measure business success.

Diagram 5.7: Importance of Information



From diagram 5.7 above the respondents rated net income before tax (NIBT) the most important (just under 4.5), with sales data following closely. Market share information and profit per product/customer are both rated just above 4 indicating that these metrics have a high importance for the respondents. The respondents rated both cost to income ratio and return on equity close to 4. Four VBM metrics received a rating higher than 3, being shareholder value added (just more than 3.5), economic value added (3.5), market value added and embedded value. Other information that is viewed important by the respondents is return on investment and core headline earnings. The respondents do not view the following information as important: cash flow return on investment, cash value added, earnings per share, price earnings ratio and residual income.

5.3.4 Information Used for Decision-Making

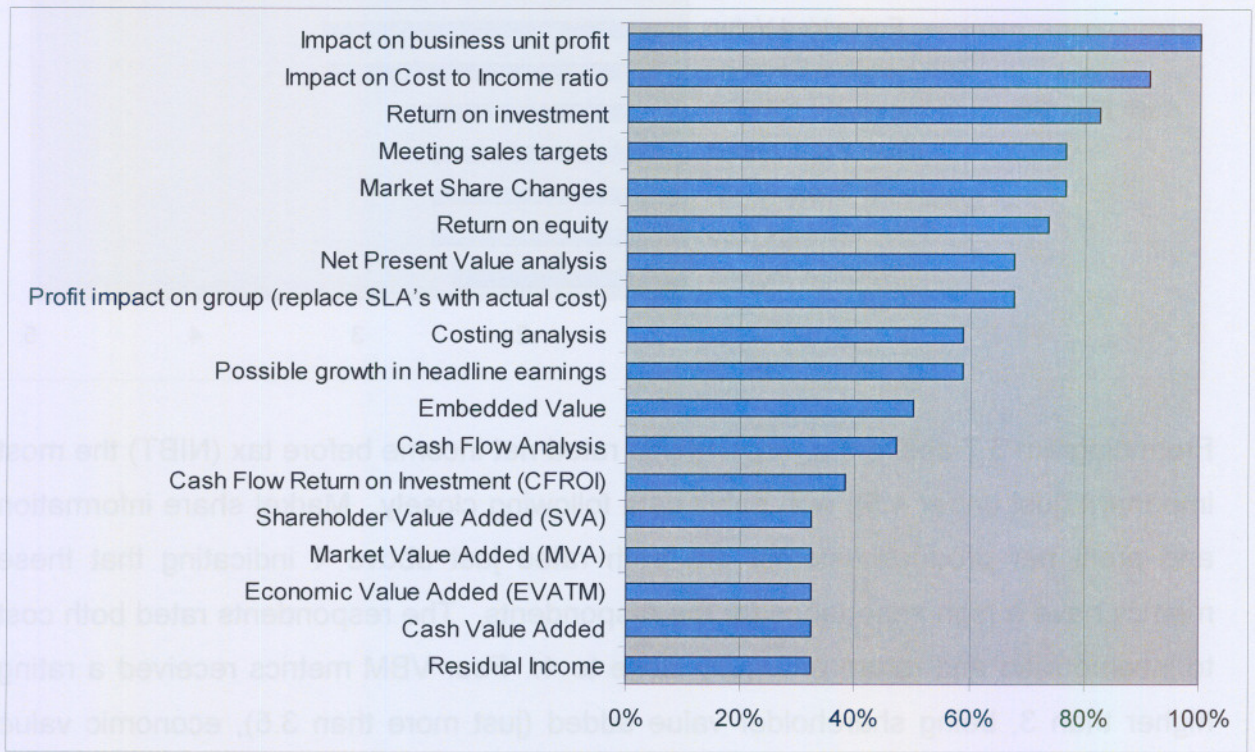
Introduction

In question 5 on page 203 the respondents were asked what type of information they consider during decision-making. The aim of this was to determine if there is a deviation of information used within decision-making versus measuring the success of the business. The respondents were also asked to rate the importance of the information they use.

Results

In diagram 5.8 below the use of information is represented by the frequency that respondents chose the item, if all respondents chose the information item as being used, it would be 100%.

Diagram 5.8: Information Considered for Decision-Making

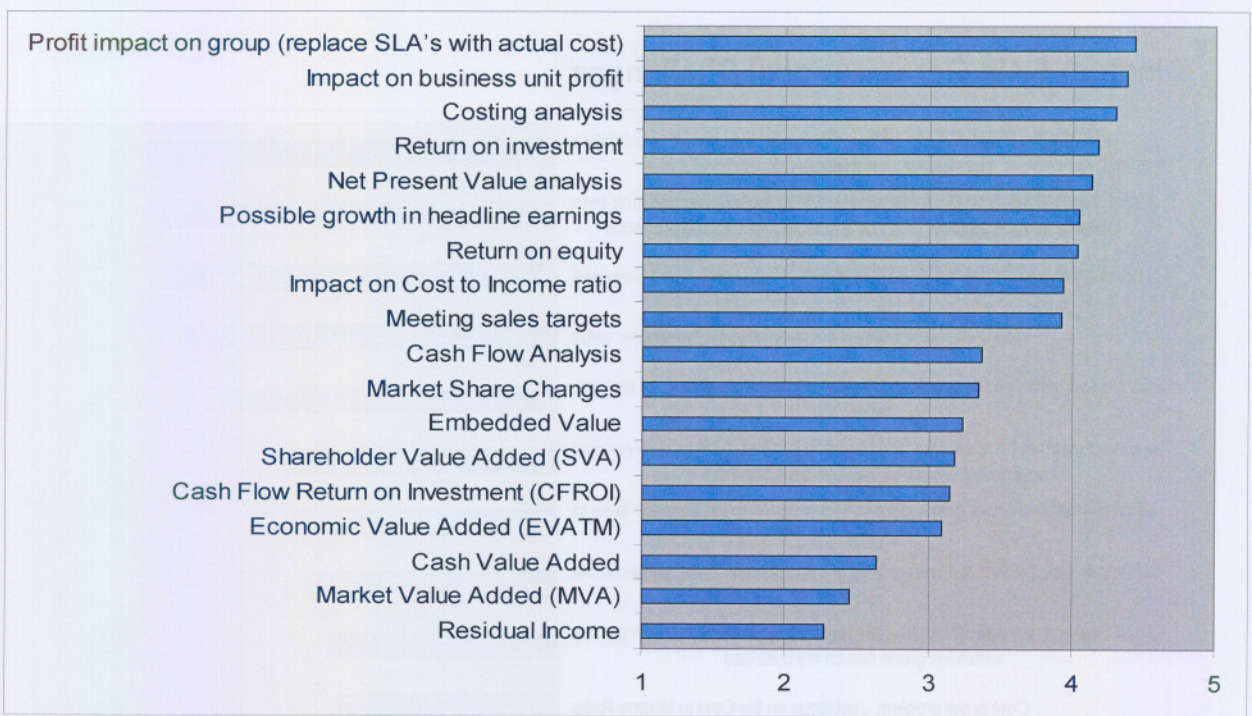


From diagram 5.8 above all respondents use the impact on business unit profit. 90% of the respondents consider the impact on the cost to income ratio within decision-making. The only other information item used by more than 80% of the respondents is return on investment. Meeting sales targets, market share changes and return on equity are used by between 70% and 80% of the respondents. Net present value analysis, a VBM-based analysis tool, are used by nearly 70% of the respondents. The only other information item used by more than 60% of the respondents in decision-making is the replacement of SLA (Service Level Agreement) costs with actual costs.

Costing analysis and the possible growth in headline earnings are considered by nearly 60% of the respondents. Except for net present value, embedded value is the only other VBM-based metric that is considered by more than 50% of respondents within decision-making. The impact on the cash flow, a key VBM principle (refer to paragraph 2.5.1 on page 36) is considered by just less than 50% of the respondents. All of the other VBM-based metrics (CFROI, SVA, MVA, EVA and CVA) are considered by less than 40% of the respondents. Residual income is also considered by less than 40% of the respondents.

The respondents were asked to rate the importance of the information they use, where 1 is not important and 5 is critical. In diagram 5.9 below the average rating by the respondents is provided. The average rating represents the average of only respondents that are using (refer to diagram 5.8 on page 137) the information within decision-making.

Diagram 5.9: Importance of Information



From diagram 5.9 above it is evident that the most important consideration for the respondents in decision-making is the replacement of SLA costs with actual costs to obtain a group perspective. This is followed by understanding the impact that decisions have on the profit of the business unit. Costing analysis, return on investment, net present value analysis, the possible growth in headline earnings and

return on equity were all rated by the respondents of high importance (all above 4). All the other information items were rated between a 3 (being important) and a 4 except for CVA, MVA and residual income.

5.3.5 Organisational Challenges

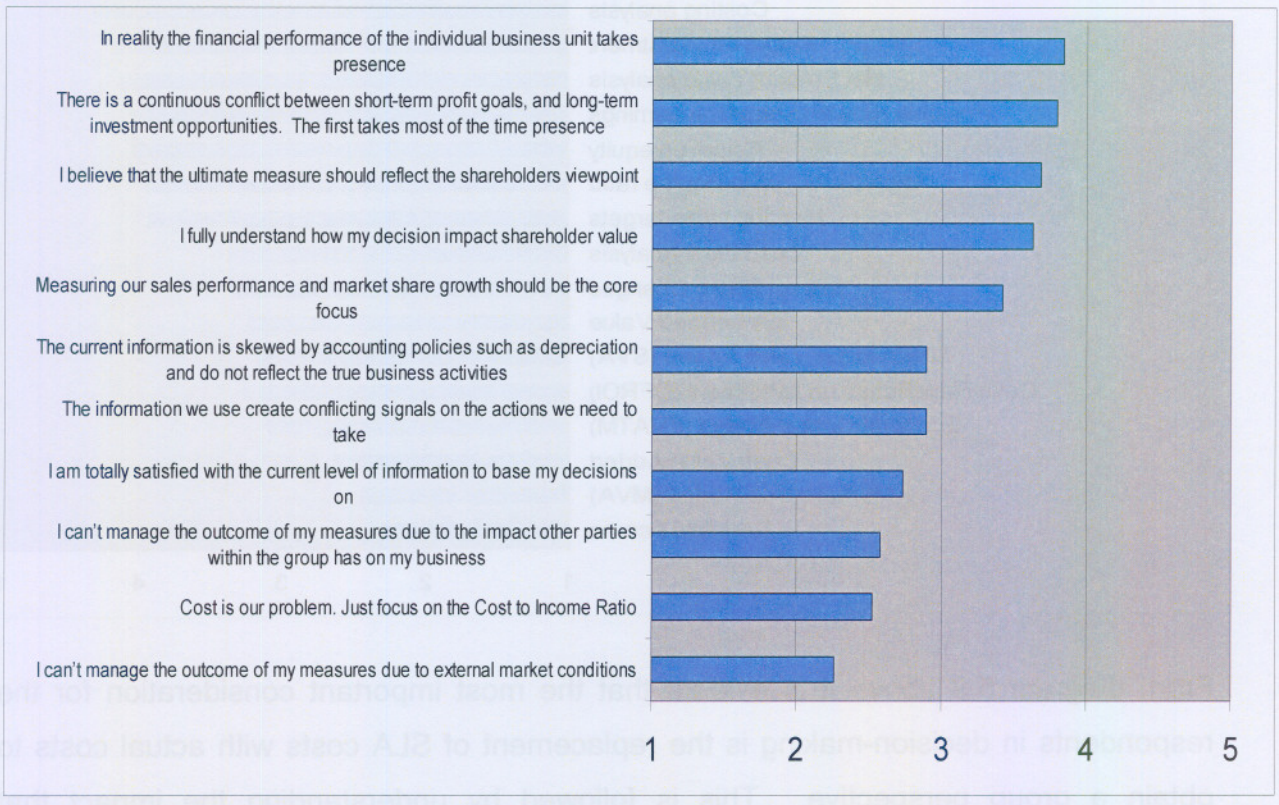
Introduction

In question 6 on page 204 the respondents were asked to provide, on a scale of 1 to 5, how strongly they agree or disagree with various statements, where 5 is strongly agree and 1 is strongly disagree. The aim of this was to determine how valid some of the statements are that were made by various VBM proponents. The variables were obtained by researching criticism of traditional metrics, the reasons provided why VBM is beneficial and from own experience. The agreement or disagreement provided insight into the challenges that managers currently experience within FNB.

Results

In diagram 5.10 below, the average rating of the statements by the respondents are provided.

Diagram 5.10: Organisational Challenges



From diagram 5.10 above the statement that the respondents mostly agreed with, is that in reality the financial performance of the individual business units takes

preference. The statement with the second highest level of agreement from the respondents was that there is continuous conflict between short-term goals and long-term investment opportunities, with short-term goals taking most of the time preference. Other statements from diagram 5.10 on page 139 where there were general agreement on (higher than 3), were:

- The ultimate measure should reflect the shareholders' viewpoint.
- They fully understand how their decisions impact shareholder value.
- Measuring sales performance and market share growth should be the core focus.

The statements in diagram 5.10 on page 139 where the respondents in general disagreed with, were:

- The current information is skewed by accounting policies such as depreciation and do not reflect the true business activities.
- The information they use creates conflicting signals on the actions they need to take.
- They are totally satisfied with the current level of information to base their decisions on.
- They can't manage the outcome of their measures due to the impact other parties within the group has on their business.
- Cost is the problem. The focus should be on the cost to income ratio.
- They can't manage the outcome of their measures due to external market conditions.

5.3.6 Importance of Core Value-Based Management Principles

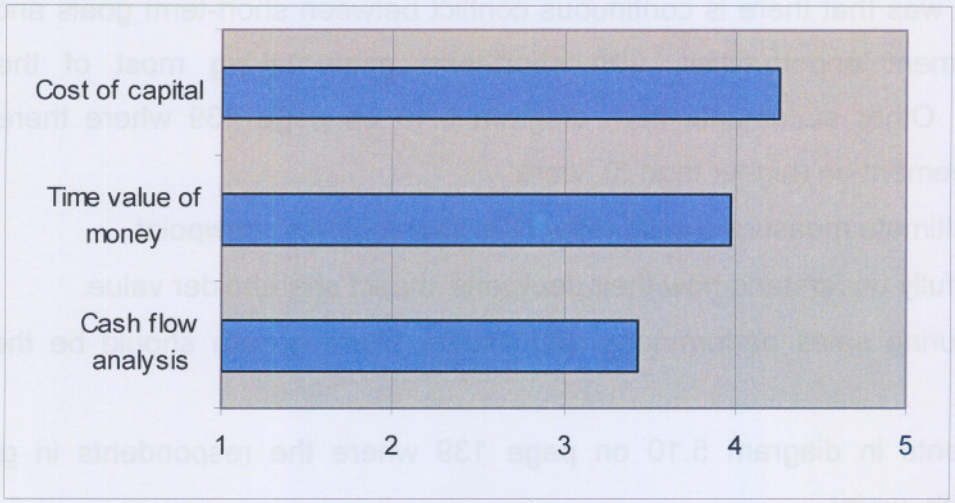
Introduction

VBM metrics have three distinct features (refer to paragraph 2.5.5 on page 41):

- Cash flow analysis;
- Adjusting for the time value of money; and
- The inclusion of cost of capital (Risk is therefore accounted for within the metric).

The respondents were requested in question 7 on page 205 to rate the importance of each component to be included into a measurement tool, where 1 is not important and 5 is critical. In diagram 5.11 on page 141 the average rating of the respondents is provided.

Diagram 5.11: Importance to Include in Measurement Tool



From diagram 5.11 above the respondents rated the inclusion of the cost of capital into a measurement tool as very important. This was followed by a rating of close to 4 for the inclusion of the time value of money. Cash flow analysis received a rating of close to 3.5, indicating that cash flow analysis is important to be incorporated into a measurement tool.

5.3.7 Current Level of Exposure and Perception of Value-Based Management

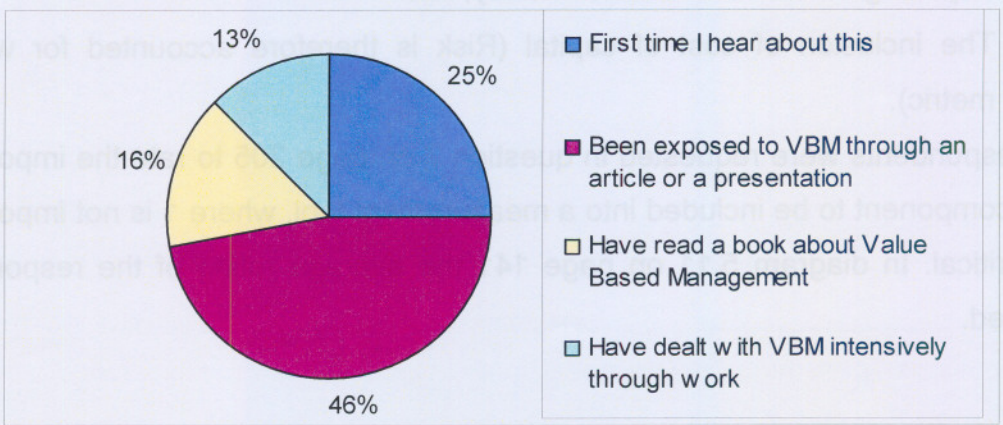
Introduction

The next section of the questionnaire (refer to annexure A on page 198) focused on the exposure of the respondents to VBM as well as their perceptions of VBM. This was important to determine the receptiveness of VBM within the organisation.

Results

In question 8 on page 206 the respondents were first asked to provide information on how they have been exposed to VBM.

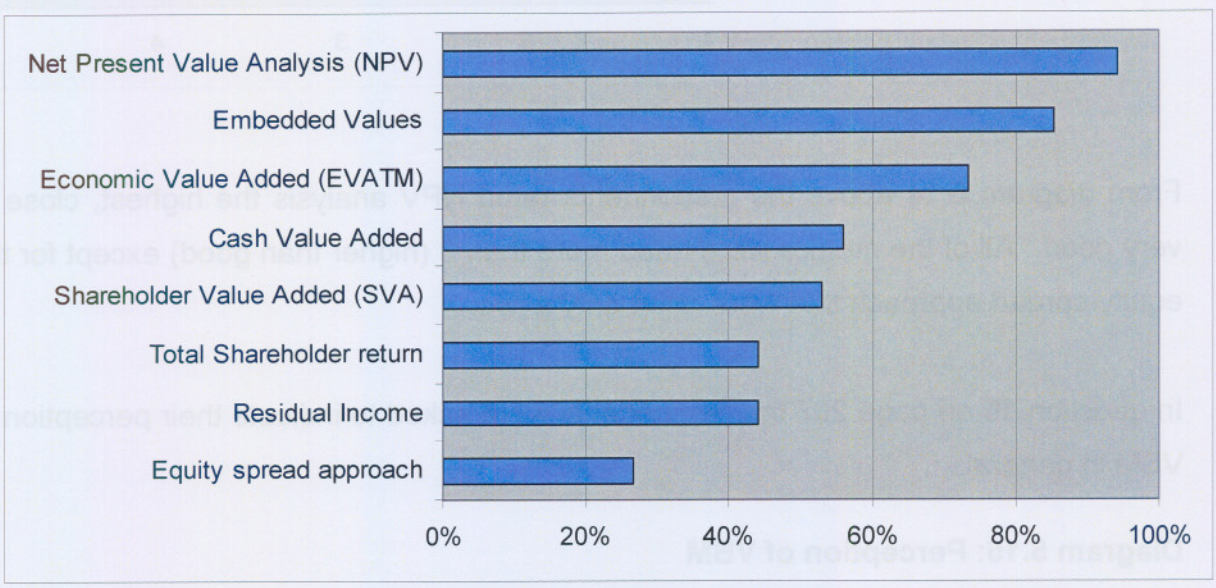
Diagram 5.12: Exposure to VBM



From diagram 5.12 on page 141, 46% of the respondents indicated that they have been exposed to VBM through an article or a presentation. 25% of the respondents indicated that from the questionnaire it is the first time they hear about VBM. 16% of the respondents have read a book about VBM and 13% of the respondents have intensely dealt with VBM within their work.

In question 9 on page 207 the respondents were asked to indicate to which VBM metrics they have been exposed to and to rate the metrics, where 1 is interesting, but not worth it and 5 is very good. In diagram 5.13 below the exposure to VBM metrics is represented by the frequency of the chosen metric; if all respondents chose the metric as being exposed to, it would be 100%.

Diagram 5.13: Exposure to VBM Metrics

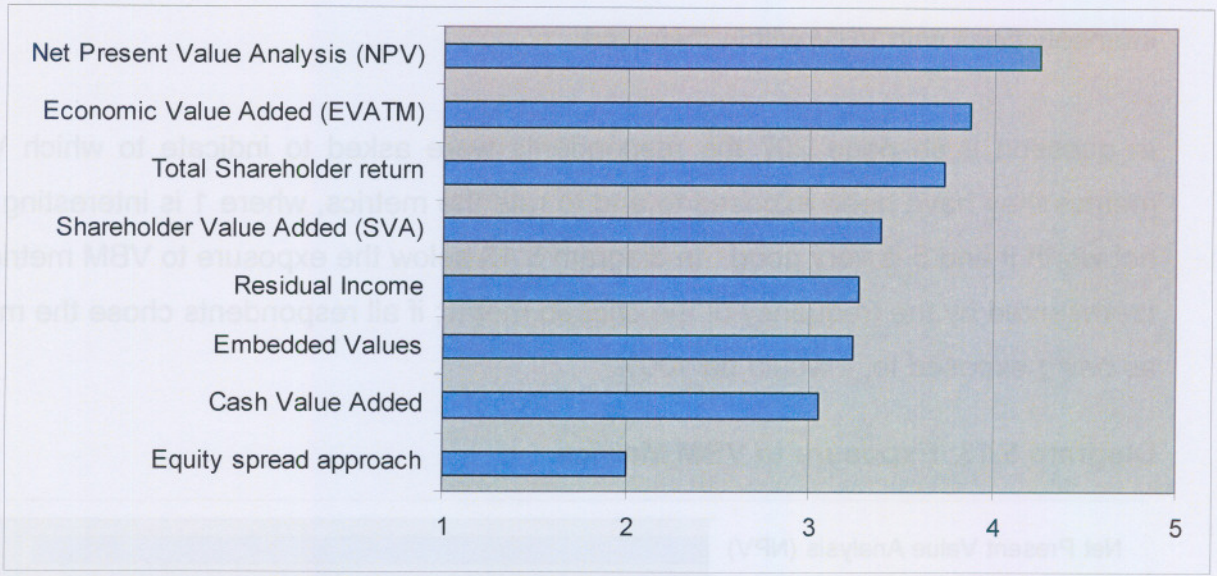


From Diagram 5.13 above, more than 90% of respondents have been exposed to NPV calculations, whilst more than 80% have also been exposed to embedded value. The only other VBM metrics where more than 50% of the respondents indicated exposure to were EVA (just over 70%), CVA (56%) and SVA (53%). Less than 50% of the respondents were exposed to total shareholder return, residual income and the equity-spread approach.

The respondents were asked to rate the metrics they were exposed to, where 1 is interesting, but not worth it and 5 is very good. In diagram 5.14 on page 143 the average rating by the respondents is provided. The average rating represents the

average of respondents that were exposed (refer to diagram 5.13 on page 142) to the metric.

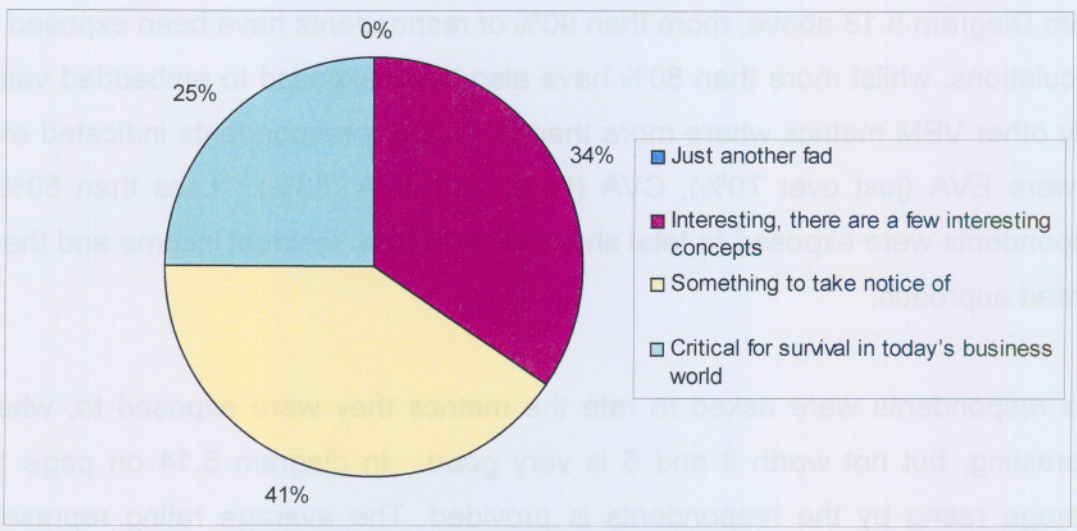
Diagram 5.14: VBM Metric Rating



From diagram 5.14 above the respondents rated NPV analysis the highest, close to very good. All of the metrics were rated more than 3 (higher than good) except for the equity-spread approach that were rated only a two.

In question 10 on page 207 the respondents were asked to indicate their perception of VBM in general.

Diagram 5.15: Perception of VBM



From diagram 5.15 on page143, 41% of the respondents felt that VBM is something to take notice of and 34% believed that VBM is interesting and there are a few interesting concepts within VBM. Only 25% believes that VBM is critical for survival in today's business world. None of the respondents felt that VBM is another fad.

5.4 Interpretation of the Results

As mentioned in paragraph 5.1 on page 124 was the aim of the research questionnaire to understand the current business targets managers use, the information and measures used to measure the success of the business and to relate this back to the benefits VBM poses to organisations. The following interpretations are from the research results provided in the previous paragraph.

5.4.1 Prominent Measures and Tools Used and their Importance

The most prominent measure used within the organisation is the increase in net income before tax (NIBT). This measure is used by all the respondents as a key business target (refer to diagram 5.4 on page 133) and is rated by the respondents as the most important target (refer to diagram 5.5 on page 134). The other two key business targets within the organisation is the growth in assets and liabilities, used by 100% of the respondents (refer to diagram 5.4 on page 133) and rated just more than 4 (refer to diagram 5.5 on page 134), and the cost to income ratio, used by more than 90% of the respondents (refer to diagram 5.4 on page 133) and received the second highest importance rating (refer to diagram 5.4 on page 133).

To measure the success of the business, the most prominent information used to measure business success is NIBT. NIBT is used by all of the respondents (refer to diagram 5.6 on page 135) and again were rated as most important (refer to diagram 5.7 on page 136). Another key information input is sales data, which is used by close than 90% of respondents (refer to diagram 5.6 on page 135) and was rated the second highest importance (refer to diagram 5.7 on page 136). The cost to income information and market share data were also used by the majority of respondents (refer to diagram 5.6 on page 135) and received high importance ratings (refer to diagram 5.7 on page 136).

It is therefore evident that the key business targets and measures centre around the income statement (NIBT) and on sales related information (growth in assets and

liabilities). The focus on cost to income ratio is more to maximise income, than to decrease or focus on cost containment. This assumption can be made from diagram 5.10 on page 139 where the respondents in general agreed with the statement that measuring the sales and market share growth should be the core focus of the organisation, whilst disagreeing with the statement that the focus should be on cost management.

From diagram 5.4 to diagram 5.7 (from page 133 to page 136) VBM-based targets and measures (EV, EVA, CFROI, MVA, SVA and CVA) do not feature at all as core business targets or seem as the most important information to measure business success. EV is the only VBM metric that is used by more than 50% of the respondents (refer to diagram 5.6 on page 135). This can be attributed to EV being used within the SLA process of FNB to reward sales within the delivery channels. The lack of VBM-based information as core business target and measure is in contrast to the general agreement of respondents to the statement that the ultimate measure should reflect the viewpoint of the shareholder (refer to diagram 5.10 on page 139).

The most prominent information used within decision-making is the impact on business unit profit. All of the respondents use this information within decision-making (refer to diagram 5.8 on page 137) and it received the second highest importance rating (refer to diagram 5.9 on page 138). Other information that is used by the majority of respondents and also rated as important are return on investment, meeting sales targets and impact on the cost to income ratio (refer to diagram 5.8 on page 137 and diagram 5.9 on page 138). The usage of VBM-based information within decision-making is higher than for measuring business success. NPV analysis is considered by nearly 70% (refer to diagram 5.8 on page 137) and received a rating of more than 4 (refer to diagram 5.9 on page 138). Despite this, it is evident from diagrams 5.8 and 5.9 (on pages 137 and 138) that VBM-based information is not used by as many respondents and also not viewed as important as traditional measures.

Despite the lack in using VBM-based information and metrics as measurement tools and within decision-making within the organisation, the respondents rated the inclusion of the key VBM-distinct features (cash flow analysis, adjusting for the time value of money and the inclusion of cost of capital) from important to quite critical (see diagram 5.11 on page 141).

5.4.2 Exposure to Value-Based Management and Perception of Value-Based Management

From diagram 5.12 on page 141 most respondents have been exposed to VBM through an article, presentation or have read a book on VBM. The VBM metrics that more than 60% of respondents had exposure to were NPV analysis, EV and EVA (refer to diagram 5.13 on page 142). The perception of VBM metrics is in general from good to very good (refer to diagram 5.14 on page 143). Although no respondent felt that VBM is another fad, the minority (25%) of respondents felt that VBM is critical for survival in today's business world (refer to diagram 5.15 on page 143).

5.4.3 Observations from the Research

From the literature and empirical research the following observations are made:

Observation 1:

Management in FNB believe in shareholder value creation, but do not practice it.

In diagram 5.10 on page 139 management agrees with the statement that the ultimate measure should reflect the shareholder's perspective. This is not practiced in the daily lives. The reasons are:

- VBM-related information is not part of the key business targets or information used to measure business success (refer to paragraph 5.4.1 on page 145). There is only limited use of VBM information in decision-making (refer to paragraph 5.4.1 on page 145).
- If management were serious about shareholder value creation, one would expect more VBM-based information to be part of the core business targets and measurements. In paragraph 2.5.5 on page 41 it was highlighted that if value creation is the core focus of the organisation, all organisational processes (including targets and rewards) should be focused on value creation.

Observation 2:

Management focus on single short-term measures not on long-term sustainable value creation.

In diagram 5.10 on page 139 management agreed with the statements that short-term goals takes preference. This is further supported by the following analysis from the research:

- The core business targets and information used are traditional accounting-based and do not provide a holistic view of value creation within the

organisation. Management will therefore focus to maximise NIBT on the short-term and also to better the cost to income ratio by focusing on sales targets (see paragraph 5.4.1 on page 144).

- The criticism towards these metrics is that they do not always reflect the shareholder perspective. It does not imply that these targets had become obsolete, but in actual fact they are part of a bigger basket of information that should support overall value creation within the organisation.
- In paragraph 2.4 on page 32 it was mentioned that traditional accounting are skewed by alternative accounting methods, investment requirements are ignored and also the time value of money is not incorporated. The aim of VBM is to rectify these shortcomings to reflect long-term sustainable shareholder value creation.
- In paragraph 3.2 on page 73 it was mentioned that VBM assists management to make informed decisions between short-term goals and long-term goals without jeopardising the long-term sustainability of the organisation.

Observation 3:

Business unit goals are more important than the organisational goals.

In diagram 5.10 on page 139 management agrees with the statement that in reality the financial performance of the business units takes preference. This is further supported by the following analysis from the research:

- All respondents use and view the impact on business unit profit as critical within decision-making (refer to diagram 5.9 on page 138). Added to this is the use of NIBT as core business target. Management not only gives priority to the performance of the business unit, but also focuses on the short-term performance of the business unit. In paragraph 2.5.5 on page 41 it was mentioned that VBM centres the organisation around the single goal of value creation, creating goal congruence.

5.5 Summary

Businesses are about creating value to their shareholders. VBM has been proposed as a management tool that assists organisations to focus all of its activities and resources to create the maximum value for shareholders. VBM can assist organisations to overcome the following challenges:

- Lack of goal congruence and the agency theory – VBM provides a single goal for managers and the various components within the business – creating shareholder wealth.
- Long-term sustainable value – employees are not only focused on the short-term but are committed to the long-term sustainability of the organisation.
- Management focuses energy and resources on the core value drivers of the organisation and how to maximise value.

Managers within First National Bank (FNB) of South Africa, a division of FirstRand Bank Limited, experience the same challenges that many other managers experience worldwide. They are continuously challenged to make trade-offs between short-term and long-term goals and the performance of the individual business units often takes preference. Despite agreeing that the shareholder should take centre stage, short-term metrics such as net income before tax, actual performance vs. budget and ROE still determine predominantly the business targets. These targets and the way that performance is measured do not focus on long-term value creation for shareholders where the cost of capital and risk, time value of money and the usage of cash flow rather than accounting earnings are used. All of the respondents viewed the incorporation of cost of capital and risk, time value of money and the use of cash flow in a measurement tool as important to critical, yet a minority of the respondents use metrics that incorporate them. The respondents that had some exposure to some VBM metrics rated these metrics in general from good to very good.

There are only two metrics generally used within FNB. The one is NPV analysis that is used within the decision-making process and EV. EV has been used by FNB as an input into the sales reward process.

The respondents believe that VBM is an important element within the business environment to take note of, yet a minority of them believe that VBM is critical for business survival. This is in sharp contrast to the comments from VBM proponents that shareholder value will be universally embraced. The question arises whether the South African environment lags behind the rest of the world? International organisations such as Lloyds TSB, The Royal Bank of Canada and Barclays Bank all embrace VBM as part of their core management initiatives.

For an organisation to embrace VBM, management wholeheartedly needs to believe that change is critical for the organisation. Despite the challenges experienced by middle to senior management within FNB, the performance of FNB over the past couple of years was good. In an era where shareholder activism is high, the organisation needs to consider how initial steps can be taken to focus the organisation to create shareholder wealth. With new entrants into the South African market, such as Barclays Bank, FNB needs to gear itself to compete with world-class organisations that embrace VBM.

CHAPTER 6: VALUE-BASED MANAGEMENT METRICS AT THE CUSTOMER- AND PRODUCT LEVEL – TWO CASE STUDIES

> **"Companies that capture and use customer data with the same kind of discipline, passion and understanding they give to operational and financial data are learning that this business practice is well worth the time and money invested."** (Kordupleski & Simpson, 2003:xiv)

6.1 Introduction

Customers are valuable to the organisation not only from the products they use today, but also the potential value that can realise from the use of products and services over a lifetime. Customer and product value analysis are core building blocks under the VBM umbrella, which assist in explaining, directing and providing focus on how, when and where value is created within the organisation.

In this chapter an investigation and evaluation of two VBM metrics at the customer- and product level within the organisation were done. This empirical study were conducted by investigating the following information for each of the metrics:

- The theoretical background of the metric;
- The underlying value drivers within the metric; and
- The application and usage of the metric within the organisation.

In this dissertation two empirical studies were done. The results from each empirical study are discussed in a separate chapter.

The third primary goal of the research (refer to paragraph 1.6 on page 8) is addressed within this chapter, namely:

C: Evaluation of VBM metrics at the customer- and product level within the organisation.

In this chapter the following will be focused on:

- Embedded value – in paragraph 6.2 on page 151 information is provided on the practical application of embedded value on the product base within FNB, and how this can assist in making decisions that would create shareholder value.
- Customer lifetime value – in paragraph 6.3 on page 169 information is provided on the practical application of customer lifetime value modelling on the customer base of FNB and the extent to which decisions can impact on shareholder value.

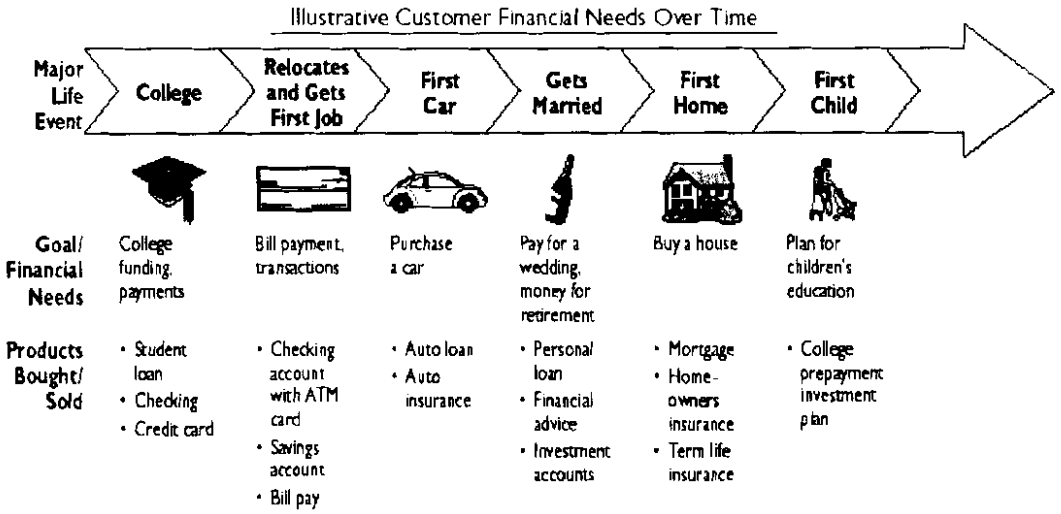
6.2 Embedded Value (EV): Application of Value-Based Management at the Product Level

The financial needs of customers change over time. Customers require different products and services over time that would fulfil their changing needs. Customers interact with the bank through the products and services they utilise. Some of these products are utilised over a lifetime, e.g. a cheque account or credit card, whilst others have a set timeframe like term deposits and mortgages.

To manage for value, it is imperative that managers understand the core value drivers of each product offering. The cost to open an account is expensive. The breakeven-point for the bank can range from a couple of months to a couple of years for mortgages. The value drivers are different for each product. The number of transactions that are performed by the customer on the account is critical for transmission accounts, whilst margins are the main driver for other products. The combination of the number of transactions and margins are critical for other products. Some products are adding value on a marginal basis, but provide a point of entry for the bank to grow the share of wallet for a specific customer.

Diagram 6.1 on page 152 is an illustrative example of how customer needs can change over time from college student to having the first child. Each of these life events has a major impact on the financial needs of a customer. It is therefore critical for decision makers within the bank to understand not only what product or service a customer requires at a point in time, but also how that product or service contributes value over time.

Diagram 6.1: Customer Needs over Time



(Source: Corporate Executive Board, 2003:39)

In paragraph 4.4 on page 118 it was mentioned that embedded value (EV) is a VBM method that is commonly used within the insurance industry and reflects the future shareholder profits. EV is the free-cash flows plus the value of in-force business. EV is commonly used within the insurance industry to determine the value of the various policies held within the business. Companies that experience a high-growth, see a decline in profits on the short-term, while the value of the company increases due to the potential of future high returns. EV's are therefore a measure to calculate the long-term economic value of a company arising from its existing business. The EV is the sum of the present value of expected future profits arising from the existing (in-force) business and the value of the net assets of shareholders. EV's can be used to value the firm from different perspectives. It is known practice within the insurance industry to use EV's as an information indicator on whether value was added or destroyed within the organisation as a whole. EV's can also be used to value a specific product or group of products.

EV's can therefore be calculated at the following levels (Jordaan, 2004:9):

- The **embedded value at a company or business unit** – averaging differences in products or segments within the company or business unit.
- The **embedded value at a product level** – averaging differences of segments using the same product.
- The **embedded value at a product/segment** level – acknowledging differences of segments at a product level in the calculation.

Organisations can also require different perspectives within the EV calculation. There is a need to know what the value is of the current book (the assets and liabilities of the financial institution) within the organisation. This can often be used to buy or sell books to or from companies. The following types of EV's are required (Jordaan, 2004:9):

- **Existing business embedded values** - this is the value of the current (in-force) business represented by the sum of the present value of expected future profits arising from the existing (in-force) business and the value of the shareholders' net assets at the point in time.
- **New business embedded values** - this is the present value of expected future profits arising from new business written.
- **Potential embedded values** - this is the adjusted new business embedded value where the value is calculated of potential future business.

6.2.1 The Embedded Value Model Components

The original purpose for the application of EV's at FNB was to use EV's as a reward mechanism for sales channels when a product is sold. This has resulted in a focus on the EV of new business. (It is important to note that EV does not measure the value of future business, but measures the value added of new business specifically added to the book).

The EV of potential new business is the expected EV that would be realised should an additional sale occur. Therefore only variable costs (and additional step changes in fixed cost) are applicable in the calculation. To calculate the value of in-force existing business the following steps should be taken:

1. Setting assumptions about future experience of the business block (e.g. attrition rates).
2. Projecting future assets and liabilities, related income, costs and future taxes in order to determine future operating earnings.
3. Projecting future required capital levels consistent with the above projections.
4. Determining future annual distributable profits from these projections.
5. Calculating the present value of those distributable profits at a discount rate.

To calculate the value of new business the same steps should be taken, but the acquisition cost should be included within the cost. Only the marginal operational cost or additional expected cost for the lifetime of the policy should be included in the calculation. By measuring EV's, management is enabled to set prices of products to monitor the profitability and determine what drives profitability over time (Skandia, 2003). Understanding the drivers of value provides insight to management on how additional value is added by a specific policy or product.

In paragraph 3.3.2 on page 88 it was mentioned that value drivers are inputs that will have an impact on the value of the organisation. As mentioned above on the steps to be taken to determine the EV of either in-force on new business, it is imperative to determine the underlying value driver elements for the specific product. Diagram 6.2 on page 155 provides a high-level (level 1) view of the value drivers for a banking product.

From Diagram 6.2 on page 155 the following key drivers have been identified:

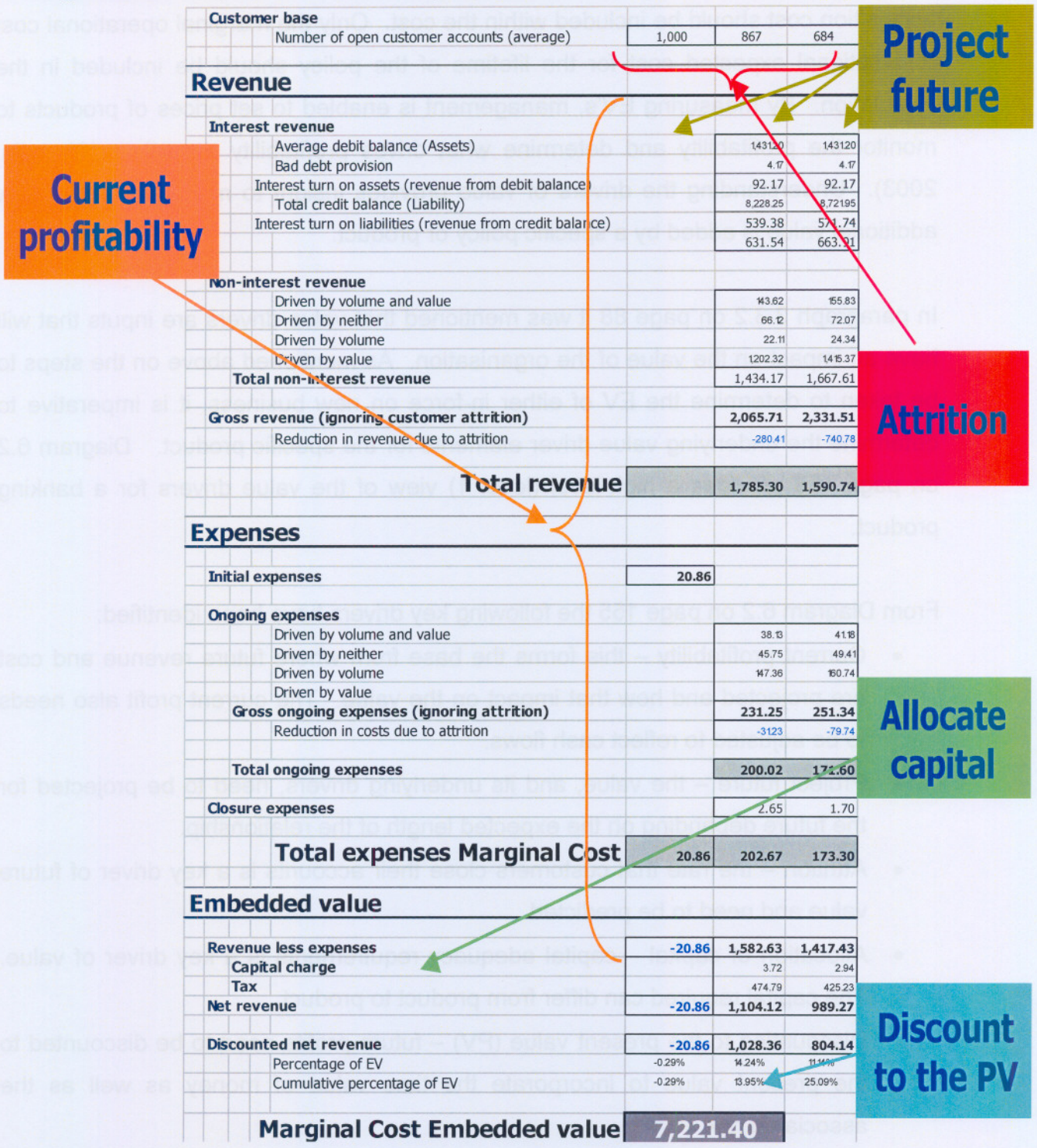
- Current profitability – this forms the base from where future revenue and cost are projected and how that impact on the value. The current profit also needs to be adjusted to reflect cash flows.
- Project future – the value, and its underlying drivers, need to be projected for the future depending on the expected length of the relationship.
- Attrition – the rate that customers close their accounts is a key driver of future value and need to be predicted.
- Allocation of capital – capital adequacy requirements is a key driver of value. The capital required can differ from product to product.
- Discounting to the present value (PV) – future profits need to be discounted to the present value to incorporate the time value of money as well as the associated risk.

Each of the above mentioned key drivers will now be discussed in more detail.

6.2.1.1 Current Profitability

The current profitability of the product forms the basis of the calculation. The current profit should be adjusted to reflect cash flow. Diagram 6.3 on page 156 is an example of a current profit perspective for a specific product. From Diagram 6.3 on page 156 the revenue and cost elements are already broken down into the key drivers.

Diagram 6.2: Embedded Value – Key Drivers



Customer base			
Number of open customer accounts (average)	1,000	867	684
Revenue			
Interest revenue			
Average debit balance (Assets)		1431.20	1431.20
Bad debt provision		4.17	4.17
Interest turn on assets (revenue from debit balance)		92.17	92.17
Total credit balance (Liability)		8,228.25	8,721.95
Interest turn on liabilities (revenue from credit balance)		539.38	571.74
		631.54	663.91
Non-interest revenue			
Driven by volume and value		143.62	155.83
Driven by neither		66.12	72.07
Driven by volume		22.11	24.34
Driven by value		1202.32	1415.37
Total non-interest revenue		1,434.17	1,667.61
Gross revenue (ignoring customer attrition)		**2,065.71**	**2,331.51**
Reduction in revenue due to attrition		-280.41	-740.78
Total revenue		**1,785.30**	**1,590.74**
Expenses			
Initial expenses	**20.86**		
Ongoing expenses			
Driven by volume and value		38.13	41.18
Driven by neither		45.75	49.41
Driven by volume		147.36	160.74
Driven by value			
Gross ongoing expenses (ignoring attrition)		**231.25**	**251.34**
Reduction in costs due to attrition		-31.23	-79.74
Total ongoing expenses		**200.02**	**171.60**
Closure expenses		2.65	1.70
Total expenses Marginal Cost	**20.86**	**202.67**	**173.30**
Embedded value			
Revenue less expenses	**-20.86**	**1,582.63**	**1,417.43**
Capital charge		3.72	2.94
Tax		474.79	425.23
Net revenue	**-20.86**	**1,104.12**	**989.27**
Discounted net revenue	**-20.86**	**1,028.36**	**804.14**
Percentage of EV	-0.29%	14.24%	11.14%
Cumulative percentage of EV	-0.29%	13.95%	25.09%
Marginal Cost Embedded value	**7,221.40**		

(Source: FNB Internal Data)

The key revenue drivers are interest revenue and non-interest revenue. The asset or liability balances and the associated interest turn on the balances drive interest revenue. Cost is broken down into initial (acquisition) expenses, ongoing expenses and closure expenses.

Diagram 6.3: Current Profitability

Revenue

Interest revenue

Average debit balance *(Assets)*	
Bad debt provision	
Interest turn on assets *(revenue from debit balance)*	
Total credit balance *(Liability)*	13,480.78
Interest turn on liabilities *(revenue from credit balance)*	205.43
Total interest revenue	205.43

Non-interest revenue

Driven by volume and value	12.65
Driven by neither	5.70
Driven by volume	62.00
Driven by value	
Total non-interest revenue	80.35

Total revenue	**285.78**

Expenses

Acquisition expenses	64.00

Ongoing expenses

Driven by volume and value	6.55
Driven by neither	29.78
Driven by volume	23.00
Driven by value	
Gross ongoing expenses	**59.33**
Total ongoing expenses	**59.33**

Closure expenses	0.00
Total expenses	**123.33**

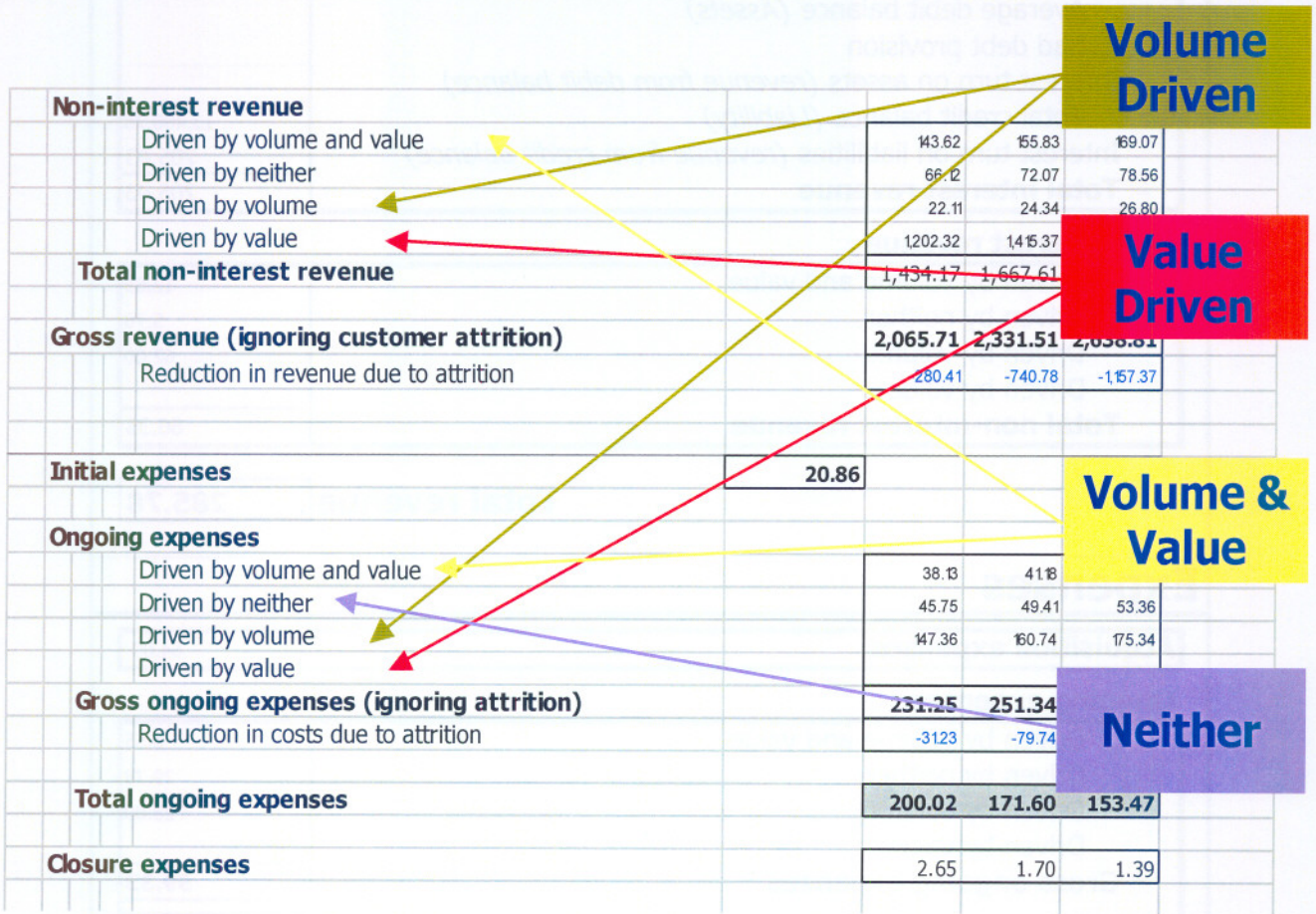
Profit

Profit before tax	**162.45**
Tax	56.86
Profit after tax	**105.59**

(Source: FNB Internal Data)

The associated risk of bad debts should also be incorporated. Both non-interest revenue (NIR) and ongoing expenses have various drivers:

Diagram 6.4: Non-Interest Revenue and Cost Drivers



(Source: FNB Internal Data)

From diagram 6.4 above it is shown that transactional volumes, the value of a transaction or a combination of the value and volume, or none of these (termed neither in diagram 6.4 above) can drive the NIR and cost.

- Volume driven – revenue or cost that is variable on the number of instances a transaction occurred. A typical example is a balance enquiry charge with the associated cost to do a balance enquiry.
- Value driven – revenue or cost that changes due to the value of the transaction. A typical example is the cost associated with handling cash within branches and other centres. The higher the value, the higher the cost.
- Volume and value driven – revenue and cost that are variable on both the volume of a transaction and the value. Cash withdrawals at ATM's are a good example. The introduction of step-change fees provides not only revenue per

transaction, but also revenue that increase with the value that is drawn at an ATM. The cost follows the same pattern.

- Neither – not all operational cost is driven by transactional volumes or value. Head office cost allocated to products is a fixed cost and irrespective of the amount of transactions or accounts, the cost will be incurred by the organisation. Some NIR, like management fees, are also not driven by the transactional volumes or values.

The effective company tax rate should be used within the EV calculation. No adjustments should be made in years for deferred taxation due to losses. Due to the structure of the company, the year that a loss occurs, the taxation saving realises.

From the above it is clear that it is critical to break down the various components to have a proper understanding of the core value drivers of a specific product or service. This type of analysis enables management to make better decisions on pricing and what the possible impact will be if the customer is encouraged to change his or her transactional behaviour.

6.2.1.2 Project Future

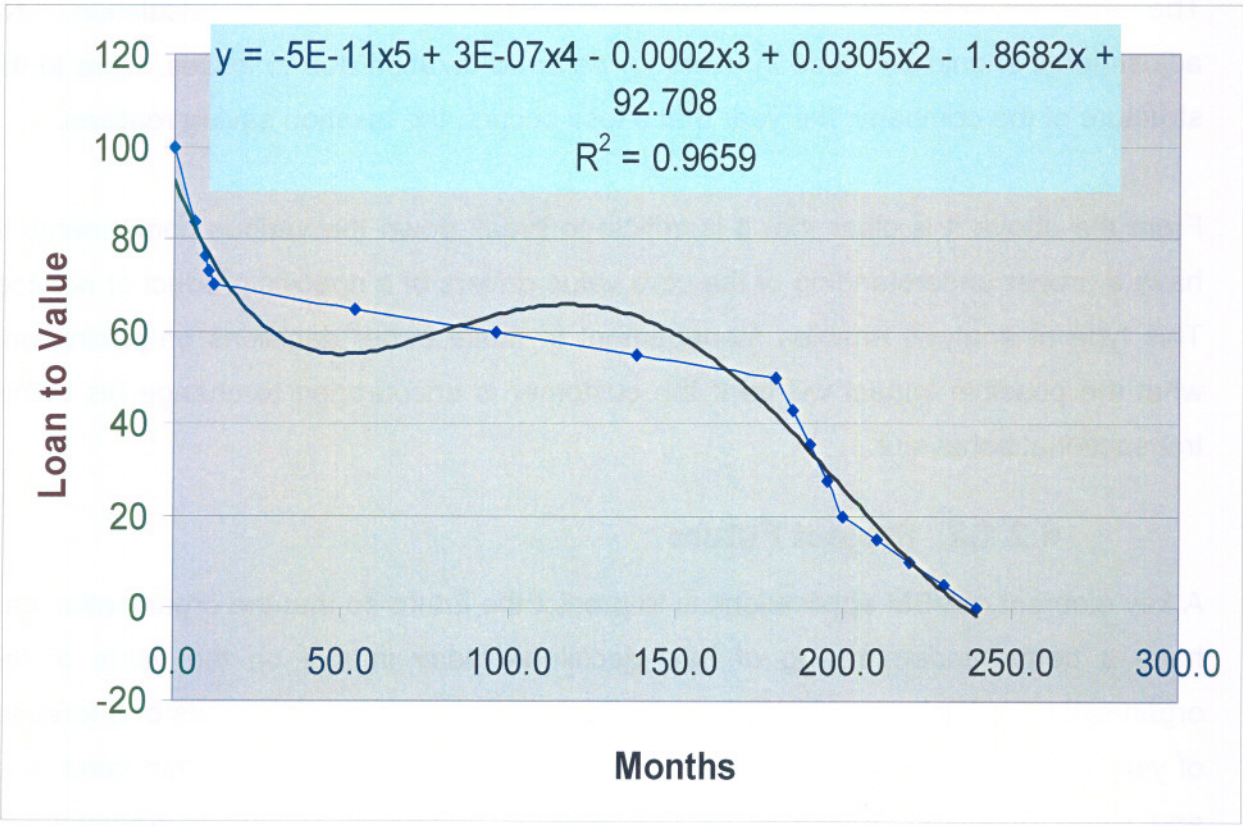
A key element of VBM applications is to predict the future so that the organisation can have a better understanding of how decisions today impact on the value of the organisation in the future. The present value of future surpluses consists of a forecast of yearly results. These yearly results incorporate assumptions for attrition rates, cost and worth of funds, growth or decline in debit and credit balances, transactional behaviour and the associated costs and revenue, inflation, taxes and the required cost of capital. There are two groups of assumptions used within these calculations:

- **Generic assumptions** – generic economic assumptions made and applied to all calculations. Typical examples of generic assumptions are inflation, GDP growth, etc. In certain expense or revenue categories it can be useful to apply different inflation rates. For example the inflation on transportation cost due to the increase in the petrol price will be much higher than the inflation of other cost categories.
- **Specific assumptions** – assumptions specifically applicable to the product EV's are calculated for. The growth in assets or liabilities and transactional behavioural change will differ from product to product. The usage of statistical

modelling is useful to determine the different assumptions that should be incorporated for specific products.

Diagram 6.5 below represents a typical example of determining a formula through statistical and mathematical modelling that can be applied to predict future balances of a product over time.

Diagram 6.5: Predicting Balances



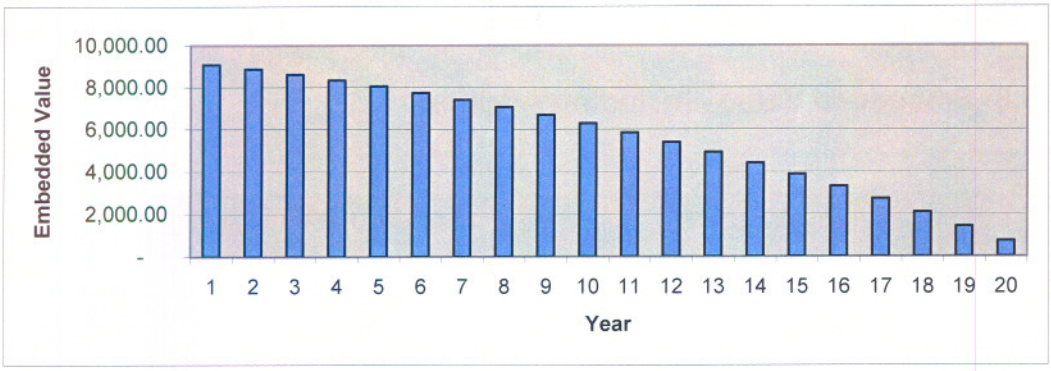
(Source: FNB Internal Data, Own research)

The length of a relationship can differ from product to product and from customer to customer. The period of forecasting of future cash flows should reflect the expected lifetime of the product.

6.2.1.3 Attrition

Attrition is a key driver determining the value of the product. It is cheaper to retain an existing customer than to acquire a new customer.

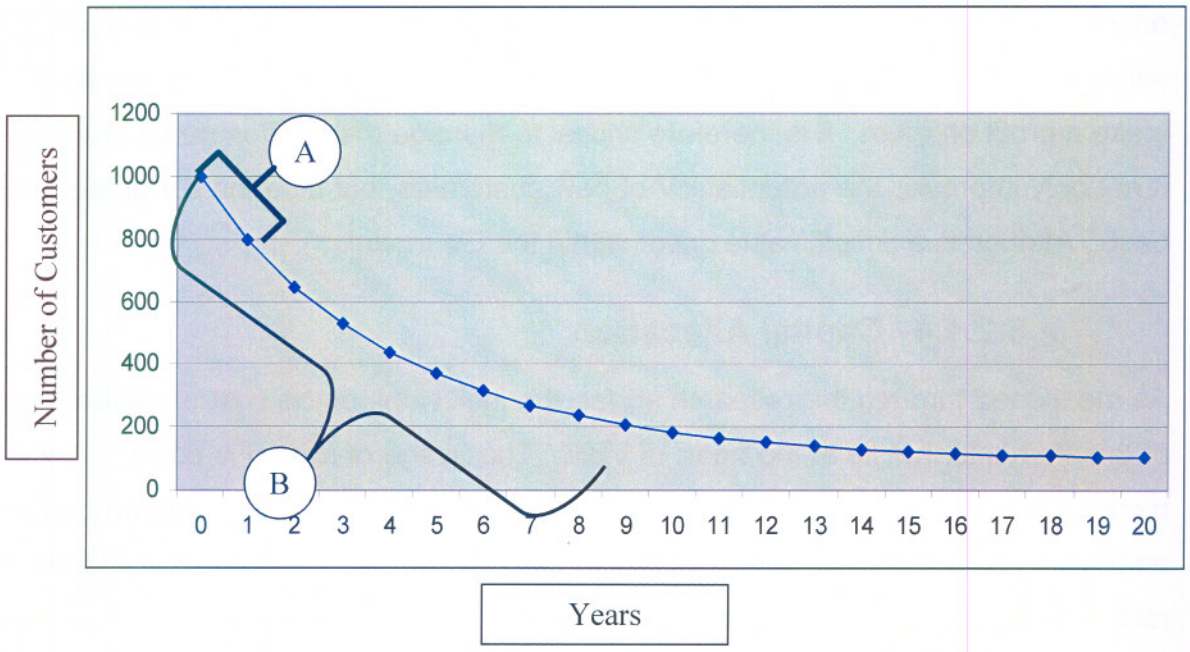
Diagram 6.6: Embedded Value– Ignoring Attrition



(Source: FNB Internal Data, Own research)

In diagram 6.6 above the EV of a product is provided over the next 20 years of a relationship. By ignoring the attrition the company therefore assumes that the original base of customers will use this specific product for the next 20 years. Mortality rates and needs changes from customers make the assumption to ignore attrition obsolete. Diagram 6.8 provides a typical attrition curve for a product:

Diagram 6.7: Attrition Curve

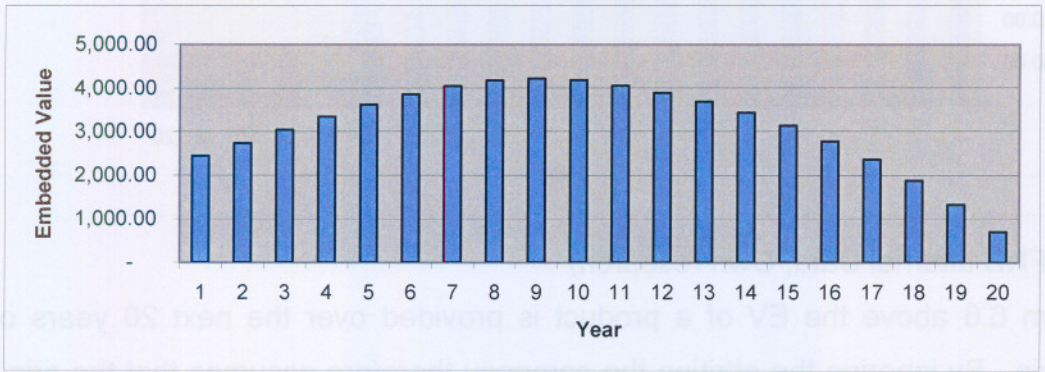


(Source: FNB Internal Data)

From diagram 6.7 above more than 20% of customers are lost in the first year (point A in diagram 6.7 above). In the first 9 years 80% of customers (point B in diagram 6.7 above) are lost. This has a big impact on the embedded value of a product.

If we apply attrition information on the information within diagram 6.6 on page 160 the EV for the specific product would be:

Diagram 6.8: Embedded Value– Including Attrition



(Source: FNB Internal Data, Own research)

From diagram 6.8 above the impact of attrition can be seen on the EV. In the first 8 years the attrition rate is very high (refer to diagram 6.7 on page 160). The loss of customers during the first 8 years erodes a considerable amount of potential value, not only because of additional cost to close those accounts, but also due to the fact that some of those customers left the bank, before the bank were able to break-even or make a profit on them. It is therefore critical to manage the attrition curve of a product. It not only improves the potential EV of new customers, but also the EV of the existing base. Attrition is a critical value driver within the EV model.

6.2.1.4 Capital Allocation

As mentioned through the research so far, the inclusions of the cost of capital are one of the elements that lie at the heart of VBM. The usage of capital is costly. Within the banking industry different products have different regulatory capital requirements. The additional cost of capital, over and above the cost of capital included in the discount rate, should be incorporated into the calculation.

6.2.1.5 Discounting to the Present Value

Future net revenue should be adjusted to the present value, thereby taking into account the weighted average cost of capital of the organisation, risk and the time value of money.

The discount rate should reflect two risk components (Young & O'Byrne, 2001:182; Madden, 1999:192):

- A risk-free rate of return; and
- A risk premium addition.

The discount rate should be consistent with the parameters of the economic model used to project distributable profits. The discount rate of FirstRand is based on the Capital Asset Pricing Model. This model includes two types of risks (Young & O'Byrne, 2001:182; Rappaport, 1998:38):

- Unsystematic risk – is risk-specific to a company and can be diversified away.
- Systematic risk –is the risk of being in the market, this is measured by an index of the degree of movement of an asset's return in response to a change in the market return. This is represented by beta (*b*) coefficient. The markets' beta coefficient is considered to be equal to 1.0.

The following formula is then used to determine the required rate of return, which is used as discount rate:

Formula 6.1: Cost of Equity using Beta's

The required return = Risk-free rate of return (the repo rate) + b(market return of assets – risk free rate of return)

(Source: Young & O'Byrne, 2001:182; Martin & Petty, 2000:65; Rappaport, 1998:40)

6.2.2 Fully Absorbed and Marginal Embedded Values

To understand the impact of cost on the value of the organisation it is important to calculate EV's on a full absorption and marginal basis. This enables management to have a better understanding of how additional products or customers impact on the value of the organisation.

6.2.2.1 Fully Absorbed Embedded Values

Fully absorbed embedded value provides management with an understanding of the relationship between the value drivers of a product, including the allocation of fixed direct and overhead costs. This is critical to ensure that all products add enough value to not only recover the variable cost associated with the product, but also to recover

allocated fixed- and head office cost. Too often managers discard the fixed cost base of the organisation, just believing that the focus should be on the additional marginal revenue. If this strategy is followed, without acknowledging that some products need to have such a high return rate so that they subsidise products only achieving a marginal return, an organisation might find themselves in troubled waters. To understand the value drivers of the organisation as a whole, it is therefore important to calculate a fully absorbed EV for products.

In diagram 6.9 on page 164 a detailed example of the calculation of the fully absorbed EV is provided. The following steps are taken to derive a fully absorbed EV for the product:

- Current profitability – the calculation are based on the current profitability of the product (refer to paragraph 6.2.1.1 on page 154). From diagram 6.9 on page 164 the calculation starts with the opening cost (point A on diagram 6.9 on page 164). Revenue and cost are then forecasted for the future years, based on the underlying drivers (refer to paragraph 6.2.1.1 on page 154).
- Forecasting – by forecasting the cost and revenue based on the drivers for future years, the profitability of future years is calculated (point B on diagram 6.9 on page 164). The profit includes a charge for additional capital cost and adjusted for attrition (see the following two bullets below).
- Attrition – future profits are adjusted to take into account the probability of customers leaving the bank. In this example most of the accounts were closed after 5 years (point C on diagram 6.9 on page 164).
- Capital allocation – any additional capital cost, over and above the cost of capital included in the discount rate, is incorporated. For this product no additional capital is required (point D on diagram 6.9 on page 164).
- Discounted to the present value – the profit of future years is then discounted to the present value using an appropriate discount rate (see paragraph 6.2.1.5 on page 161). This is indicated by point E on diagram 6.9 on page 164.
- Embedded value – the EV of the product is calculated by adding the present values of future profits (point F on diagram 6.9 on page 164).

Diagram 6.9: Fully Absorbed Embedded Value

(A)

CDA01CB Cashflow Projection (Years)	OPENING	YEARS								
	0	1	2	3	4	5	6	7	8	9
Customer base										
Number of open customer accounts *(average)*	1,000	638	63	35	20	17	0	0	0	0
Revenue										
Interest revenue										
Average debit balance *(Assets)*										
Bad debt provision										
Interest turn on assets *(revenue from debit balance)*										
Total credit balance *(Liability)*		13,857.75	14,689.21	15,570.57	16,504.80	17,495.09	18,544.80	19,657.48	20,836.93	22,087.15
Interest turn on liabilities *(revenue from credit balance)*		205.43	217.76	230.82	244.67	259.35	274.91	291.41	308.89	327.43
Total interest revenue		205.43	217.76	230.82	244.67	259.35	274.91	291.41	308.89	327.43
Non-interest revenue										
Driven by volume and value										
Driven by neither										
Driven by volume										
Driven by value										
Total non-interest revenue										
Gross revenue *(ignoring customer attrition)*		**205.43**	**217.76**	**230.82**	**244.67**	**259.35**	**274.91**	**291.41**	**308.89**	**327.43**
Reduction in revenue due to attrition		-75.33	-204.01	-222.82	-239.69	-255.07	-274.89	-291.39	-308.88	-327.41
Total revenue		**130.11**	**13.74**	**8.01**	**4.99**	**4.28**	**0.02**	**0.02**	**0.01**	**0.01**
Expenses										
Initial expenses	74.74									
Ongoing expenses										
Driven by volume and value		6.55	7.08	7.64	8.26	8.92	9.63	10.40	11.23	12.13
Driven by neither		29.78	32.16	34.74	37.52	40.52	43.76	47.26	51.04	55.12
Driven by volume		221.25	241.34	263.25	287.16	313.23	341.67	372.69	406.53	443.45
Driven by value										
Gross ongoing expenses *(ignoring attrition)*		**257.58**	**280.58**	**305.63**	**332.93**	**362.66**	**395.06**	**430.35**	**468.81**	**510.70**
Reduction in costs due to attrition		-95.06	-262.88	-295.04	-326.14	-356.69	-395.03	-430.33	-468.79	-510.68
Total ongoing expenses		**162.53**	**17.70**	**10.60**	**6.78**	**5.98**	**0.03**	**0.03**	**0.02**	**0.02**
Closure expenses		38.11	1.55	0.79	0.12	1.04	0.00	0.00		
Total expenses Fully Absorbed	**74.74**	**200.63**	**19.25**	**11.39**	**6.91**	**7.02**	**0.03**	**0.03**	**0.02**	**0.02**
Embedded value										
Revenue less expenses	**-74.74**	**-70.53**	**-5.51**	**-3.38**	**-1.92**	**-2.74**	**-0.01**	**-0.01**	**-0.01**	**-0.01**
Capital charge (D)										
Tax		-21.16	-1.65	-1.01	-0.58	-0.82	0.00	0.00	0.00	0.00
Net revenue	**-74.74**	**-49.37**	**-3.85**	**-2.37**	**-1.34**	**-1.92**	**-0.01**	**-0.01**	**0.00**	**-0.01**
Discounted net revenue Fully Absorbed	**-74.74**	**-45.72**	**-3.10**	**-1.66**	**-0.83**	**-1.02**	**0.00**	**0.00**	**0.00**	**0.00**
Percentage of EV		58.81%	35.98%	2.44%	1.30%	0.65%	0.80%	0.00%	0.00%	0.00%	0.00%
Cumulative percentage of EV		58.81%	94.79%	97.22%	98.53%	99.18%	99.98%	99.98%	99.98%	99.99%	99.99%

(C)

(B)

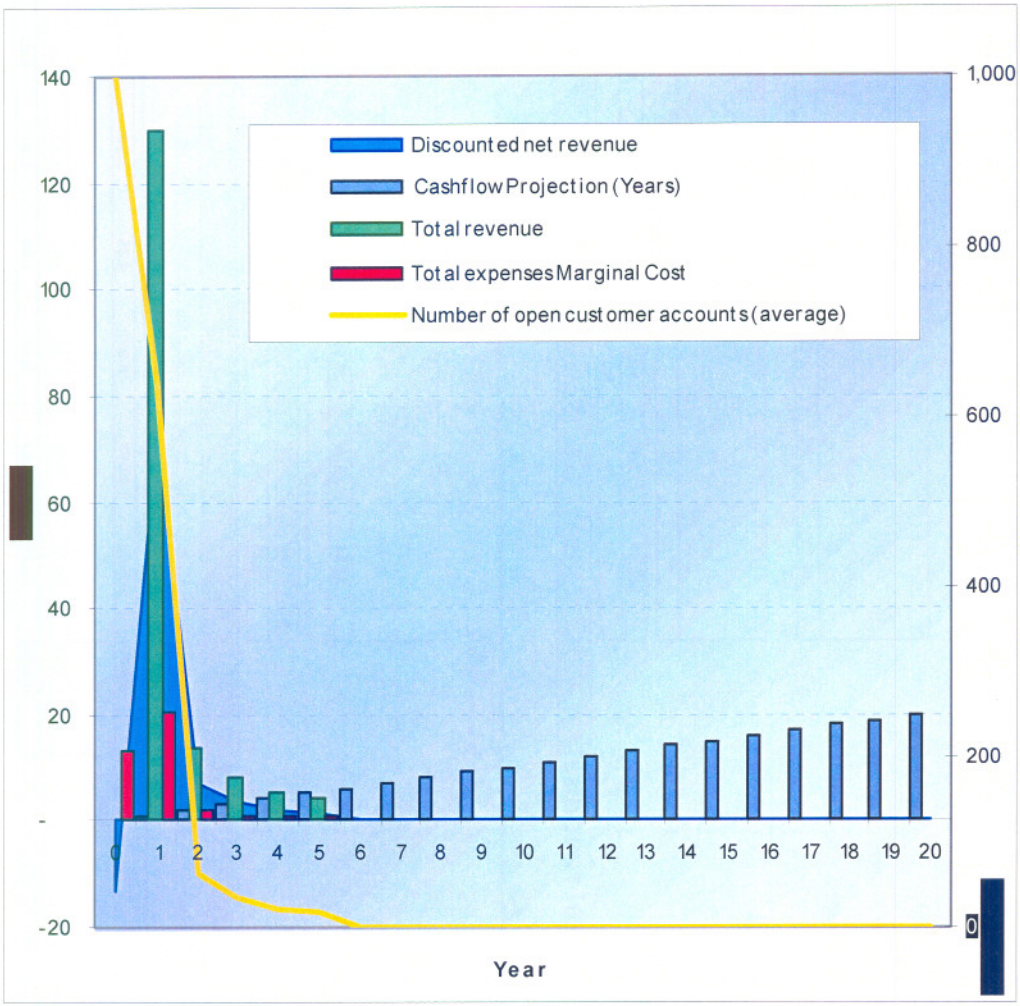
(E)

Fully Absorbed Embedded value **-127.08** (F)

(Source: FNB Internal Data)

the organisation. The process to calculate the marginal EV is similar to that of the fully absorbed EV (refer to 6.2.2.1 on page 163), except that fixed direct and overhead costs are not included (see G on diagram 6.12 on page 167). The explanation of the calculation given for the fully absorbed EV would therefore not be repeated for the calculation of the marginal EV calculation. In diagram 6.12 on page 167 similar information is provided for the marginal EV calculation as in diagram 6.9 on page 164 for the fully absorbed EV calculation.

Diagram 6.11: Marginal Embedded Value



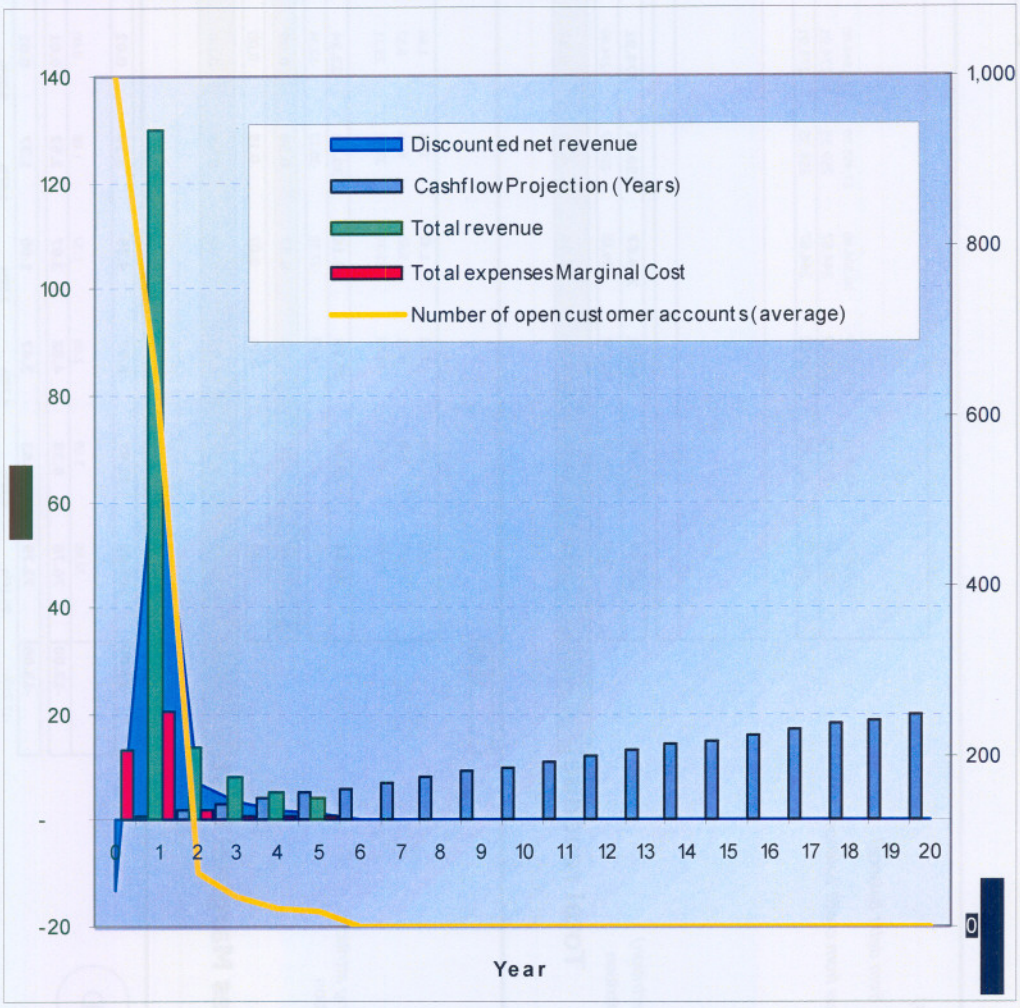
Marginal EV **R 73.40**

(Source: FNB Internal Data)

From diagram 6.11 above the product that had a negative fully absorbed EV (refer to diagram 6.10 on page 165) now has a positive marginal EV of R73.40 (refer to F on diagram 6.12 on page 167). This implies that the type of activities performed by this customer has high associated fixed- and overhead costs.

the organisation. The process to calculate the marginal EV is similar to that of the fully absorbed EV (refer to 6.2.2.1 on page 163), except that fixed direct and overhead costs are not included (see G on diagram 6.12 on page 167). The explanation of the calculation given for the fully absorbed EV would therefore not be repeated for the calculation of the marginal EV calculation. In diagram 6.12 on page 167 similar information is provided for the marginal EV calculation as in diagram 6.9 on page 164 for the fully absorbed EV calculation.

Diagram 6.11: Marginal Embedded Value

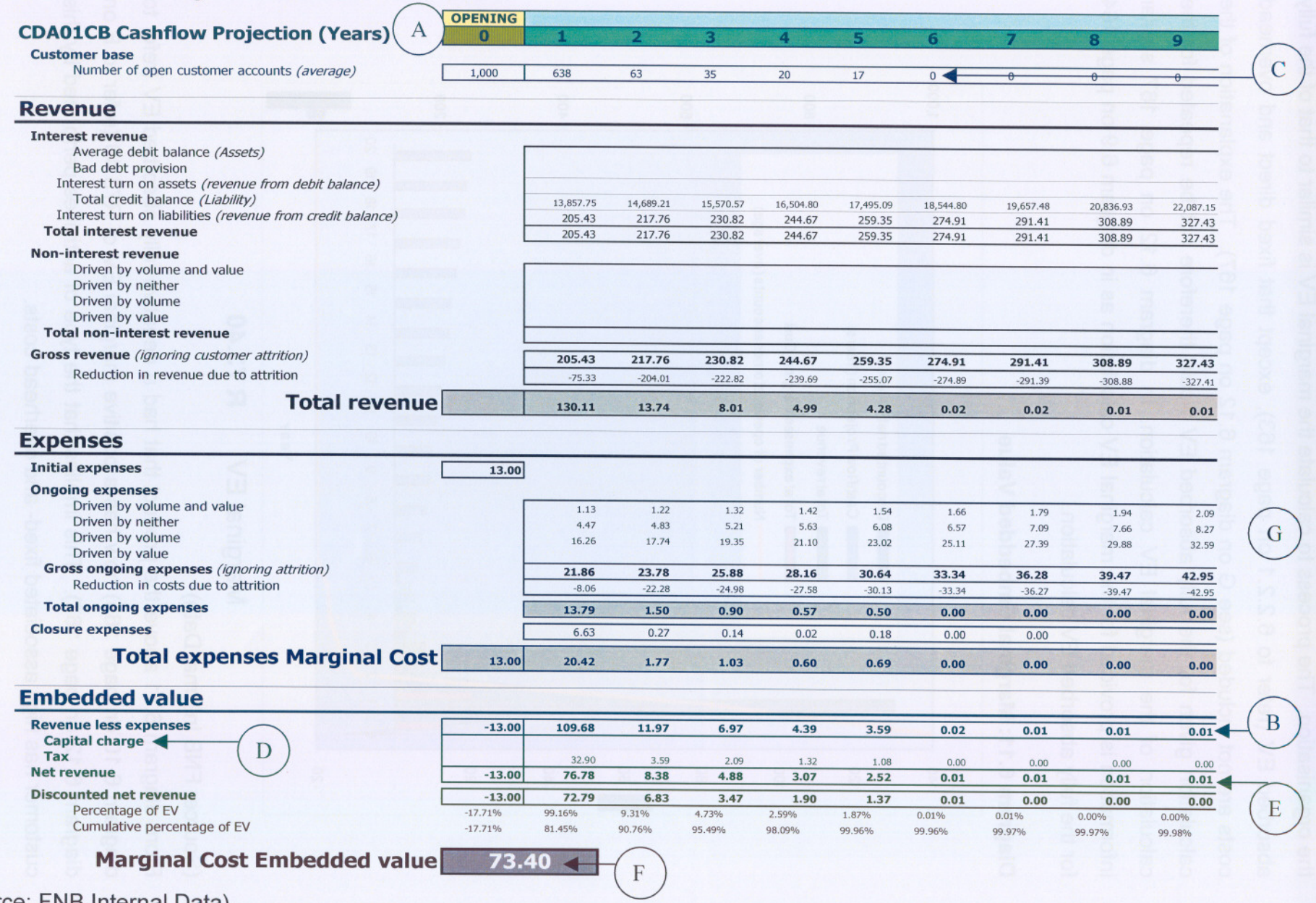


Marginal EV **R 73.40**

(Source: FNB Internal Data)

From diagram 6.11 above the product that had a negative fully absorbed EV (refer to diagram 6.10 on page 165) now has a positive marginal EV of R73.40 (refer to F on diagram 6.12 on page 167). This implies that the type of activities performed by this customer has high associated fixed- and overhead costs.

Diagram 6.12: The Marginal Embedded Value Model



CDA01CB Cashflow Projection (Years)	OPENING 0	1	2	3	4	5	6	7	8	9
Customer base										
Number of open customer accounts *(average)*	1,000	638	63	35	20	17	0	0	0	0
Revenue										
Interest revenue										
Average debit balance *(Assets)*										
Bad debt provision										
Interest turn on assets *(revenue from debit balance)*										
Total credit balance *(Liability)*		13,857.75	14,689.21	15,570.57	16,504.80	17,495.09	18,544.80	19,657.48	20,836.93	22,087.15
Interest turn on liabilities *(revenue from credit balance)*		205.43	217.76	230.82	244.67	259.35	274.91	291.41	308.89	327.43
Total interest revenue		205.43	217.76	230.82	244.67	259.35	274.91	291.41	308.89	327.43
Non-interest revenue										
Driven by volume and value										
Driven by neither										
Driven by volume										
Driven by value										
Total non-interest revenue										
Gross revenue *(ignoring customer attrition)*		**205.43**	**217.76**	**230.82**	**244.67**	**259.35**	**274.91**	**291.41**	**308.89**	**327.43**
Reduction in revenue due to attrition		-75.33	-204.01	-222.82	-239.69	-255.07	-274.89	-291.39	-308.88	-327.41
Total revenue		**130.11**	**13.74**	**8.01**	**4.99**	**4.28**	**0.02**	**0.02**	**0.01**	**0.01**
Expenses										
Initial expenses	**13.00**									
Ongoing expenses										
Driven by volume and value		1.13	1.22	1.32	1.42	1.54	1.66	1.79	1.94	2.09
Driven by neither		4.47	4.83	5.21	5.63	6.08	6.57	7.09	7.66	8.27
Driven by volume		16.26	17.74	19.35	21.10	23.02	25.11	27.39	29.88	32.59
Driven by value										
Gross ongoing expenses *(ignoring attrition)*		**21.86**	**23.78**	**25.88**	**28.16**	**30.64**	**33.34**	**36.28**	**39.47**	**42.95**
Reduction in costs due to attrition		-8.06	-22.28	-24.98	-27.58	-30.13	-33.34	-36.27	-39.47	-42.95
Total ongoing expenses		**13.79**	**1.50**	**0.90**	**0.57**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**
Closure expenses		6.63	0.27	0.14	0.02	0.18	0.00	0.00		
Total expenses Marginal Cost	**13.00**	**20.42**	**1.77**	**1.03**	**0.60**	**0.69**	**0.00**	**0.00**	**0.00**	**0.00**
Embedded value										
Revenue less expenses	**-13.00**	**109.68**	**11.97**	**6.97**	**4.39**	**3.59**	**0.02**	**0.01**	**0.01**	**0.01**
Capital charge										
Tax		32.90	3.59	2.09	1.32	1.08	0.00	0.00	0.00	0.00
Net revenue	**-13.00**	**76.78**	**8.38**	**4.88**	**3.07**	**2.52**	**0.01**	**0.01**	**0.01**	**0.01**
Discounted net revenue	**-13.00**	**72.79**	**6.83**	**3.47**	**1.90**	**1.37**	**0.01**	**0.00**	**0.00**	**0.00**
Percentage of EV	-17.71%	99.16%	9.31%	4.73%	2.59%	1.87%	0.01%	0.01%	0.00%	0.00%
Cumulative percentage of EV	-17.71%	81.45%	90.76%	95.49%	98.09%	99.96%	99.96%	99.97%	99.97%	99.98%
Marginal Cost Embedded value	**73.40**									

(Source: FNB Internal Data)

By analysing this product within the context of the product portfolios of the customers utilising this product, management can make informed decisions on how to increase the value realised from this specific product. A first step is to analyse the attrition rate and determine how a change within the attrition rate can add more value, or to determine if there is a substitute product that can be offered that will yield a higher return. By analysing the volume and value drivers it might be apparent that the pricing of the product is incorrect.

6.2.2.3 Embedded Values Usage within the Organisation

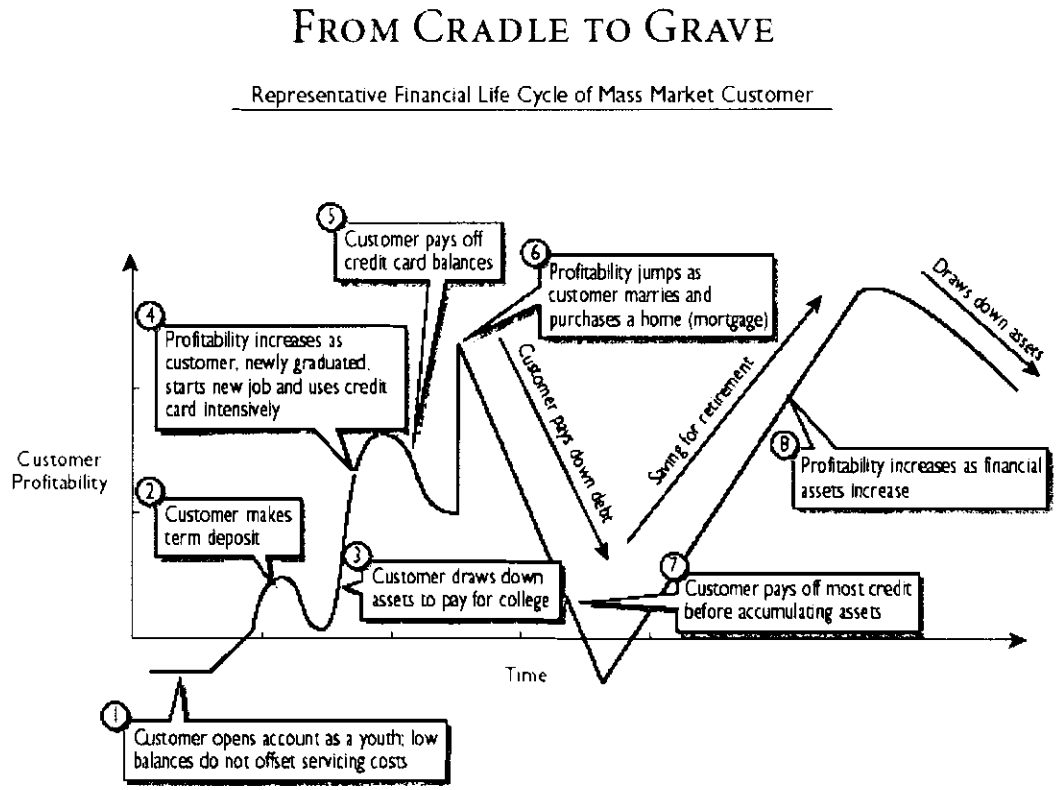
As mentioned, FNB uses EV as a sales reward mechanism in the form of an incentive to the sales channels to sell high value products to the customer base. The following are some of the uses of EV within the organisation:

- Sales measurement and sales rewarding – EV measures the value of sales and is used as a service level agreement (SLA) between business units.
- New business value – the information is use within business cases to determine the value that a new product or service will add to the organisation.
- Understanding – provides an understanding to the business on the underlying value drivers and how they have an impact on value. It provides a tool to the business where the impact of decisions can be seen by taking both the balance sheet and income statement into account.

6.3 Customer Lifetime Value (CLV): Application of Value-Based Management at the Customer Level

The needs of customers change over time. The challenge for banks is to predict these changes and to provide products and services that will yield a high return for the bank over time.

Diagram 6.13: Customer Needs over Time

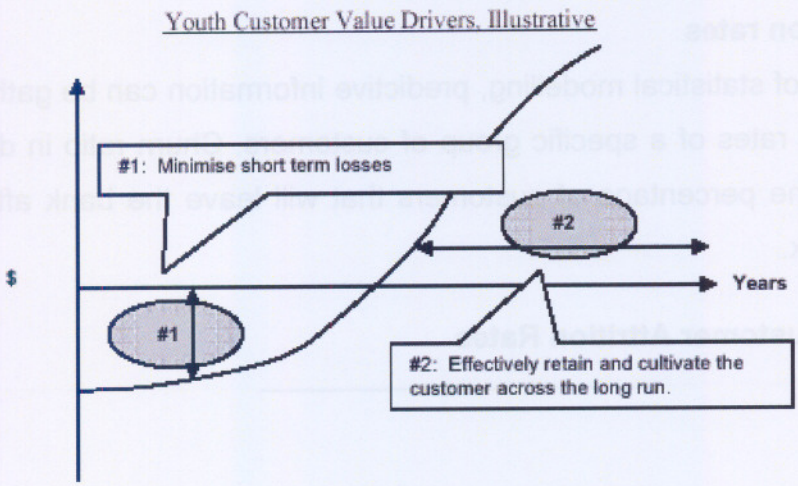


(Source: Corporate Executive Board: 2002:9)

From diagram 6.13 above a customer can open an account with the bank as a youth. During this phase balances are low. To attract potential customers, the bank offers accounts with low transactional fees. A customer often requires a student loan from the bank to finance study expenses. Student loans are low return products offered to attract potential customers. These customers have a high future potential value for the organisation.

The challenge for banks is to balance initial low returns or even losses with future high returns at later lifestages of a customer.

Diagram 6.14: The Balancing Act for Retention



(Source: Corporate Executive Board: 2004c:9)

In diagram 6.14 above the Corporate Executive Board suggests that organisations need to minimise the short-term losses, but still retain and nurse customers over the longer term. The challenge for banks is to predict the next lifestage and behaviour of a customer. The use of statistical modelling through propensity analysis is crucial within the customer lifetime value (CLV) model. FNB has developed initial CLV models to be used within business cases. CLV is not used as intensively as EV within the organisation.

To calculate CLV, the first step is to predict the probability of the next lifestage of a customer.

Table 6.1: Customer Lifestages

Average customer profit per segment	X_begin			
Y_begin	13-17	18-26	27-54	55+
<60k				
60k-<350k		A	?	
350k-<750k			?	
750k+		?		

(Source: FNB Internal Data)

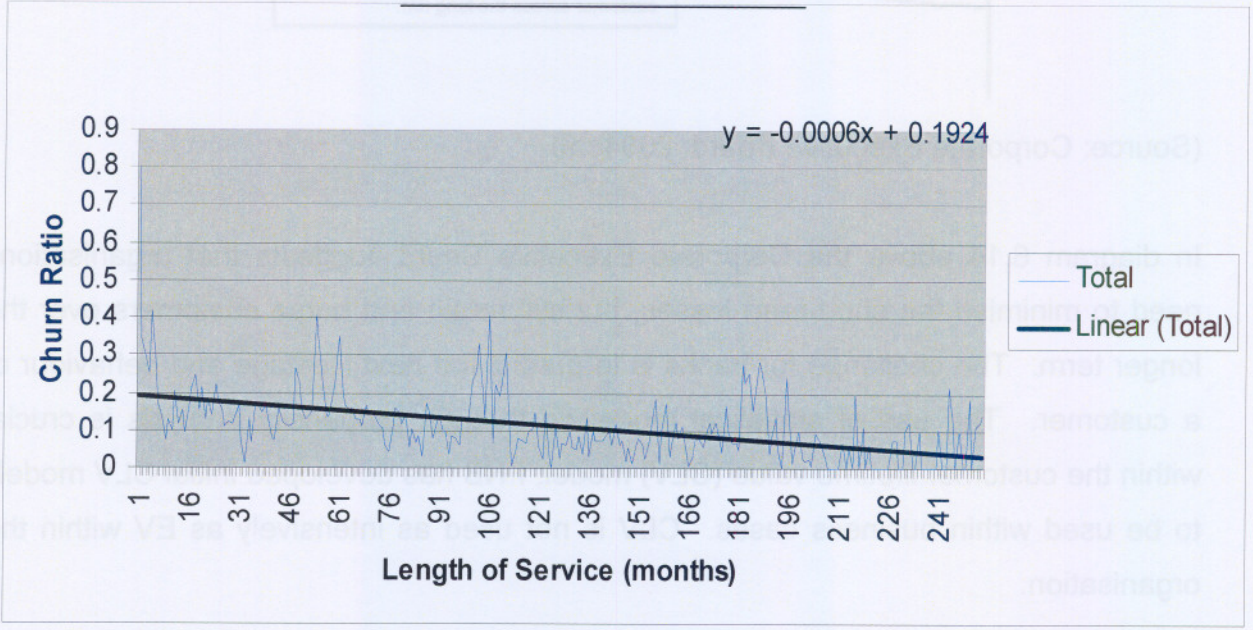
From table 6.1 on page 170 the probability that customer A (Age 18-26 and Income >= 60k < 350k) will change segment, needs to be determined. In this example there are

sixteen different lifestages based on income and age. Incorporated in the calculation, the probability of customers leaving the bank (see customer attrition rates below) or mortality rates needs to be predicted.

Customer attrition rates

Through the use of statistical modelling, predictive information can be gathered on the expected attrition rates of a specific group of customers. Churn ratio in diagram 6.15 below refers to the percentage of customers that will leave the bank after a certain time with the bank.

Diagram 6.15: Customer Attrition Rates



(Source: FNB Internal Data)

From diagram 6.15 above, a linear line is drawn that reflects the possibility of a customer that might leave the bank after a specific length of service. As shown within the EV models, the most likely time a customer will leave is the first couple of years. This is concerning as banks incur considerable cost to acquire a new customer. By understanding the attrition rates, FNB can now predict the number of customers that will leave the bank in a given year.

To understand how customers will move between the various lifestages, data from multiple periods are required. Through statistical modelling the probability of customers moving from one stage to the next stage is calculated.

Table 6.2 is a visual presentation of the steps taken within the statistical model. From this model, the move of 4.5 million customers was analysed (A). Of the 157k (B) customers that were at point X=1 and Y=1 a year ago, 23k left the bank (C) whilst 119k were still in this bracket (D) after a year. 13k customers moved into a new age band (E), whilst some of them remained in the existing age band but changed income bands.

Table 6.2: Customer Lifestages

Income bands

Customer base 1 year ago

Age bands

Sum of COUNT	X_begin					
Y_begin	1	2	3	4	5	Grand Total
1	157019	114922	631654	1776891	592823	3273309
2	3746	3811	99450	813821	192784	1113612
3	133	156	2074	60224	13880	76467
4	163	560	15580	68832	10653	95788
Grand Total	161061	119449	748758	2719768	810140	4559176

A

B

Customer base move for a sub-group after 1 year

X_begin	1
Y_begin	1

Sum of COUNT	X_end			
Y_end	0	1	2	Grand Total
0	23888			23888
1		119007	13050	132057
2		823	173	996
3		35	9	44
4		29	5	34
Grand Total	23888	119894	13237	157019

C

D

E

(Source: FNB Internal Data)

By analysing the move of customers within each of these bands, it assists FNB to predict how customers would move through the brackets over time.

The next step is to understand the profitability of customers at each lifestage. Just as within the EV examples, it is critical to analyse the drivers of profitability over time. Young entrants into the job market require vehicle financing and depending on income they would require property finance to buy their first property. Banks offer various mortgage products, where customers can make use of balloon payments to make property finance more "affordable" at an earlier lifestage. Banks offer the products

based on a prediction that customers will have an increase in their income and can then afford higher mortgage repayments. In reality, during the earlier stages capital and interest repayments are postponed to a later stage, only to be paid with additional interest.

From the FNB customer profitability model the average profit per customer in each segment is calculated by taking the total average monthly profit of a segment and dividing that by the number of customers. The profit model uses the actual revenue and activity-based costing (ABC) information to determine customer profitability.

Table 6.3: Average Monthly Customer Profitability per Segment (R Value)

Average customer profit per segment	X_begin			
Y_begin	13-17	18-26	27-54	55+
<60k	1.44	18.33	31.72	32.61
60k-<350k	7.38	71.75	163.76	196.75
350k-<750k	29.66	194.40	533.18	498.80
750k+	7.31	44.05	502.55	584.69

(Source: FNB Internal Data)

Table 6.3 above provides the average profitability of a customer within a specific segment. From table 6.3 above the profit is the lowest during younger years, and peaks for customers older than 55 and with income more than 750k per year. By analysing the product holdings and associated EV's of the products and the value drivers, valuable insight can be gained that would assist in better decisions being made that would create value for the organisation. To perform what-if scenario modelling, it is important to calculate the average product holding of a customer. This is also referred to as the VSI (Vertical Sales Index) or the share-of-wallet (refer to paragraph 4.4 on page 115). This can provide an indication of the potential value that is created through cross-selling at different lifestages.

The probability of a customer to migrate to other lifestages (including attrition), which is derived from the statistical model, is combined with the average profit per customer in a lifestage. This gives the potential value of a lifestage, for a hypothetical 1 000 customers, based on current profitability. Table 6.4 below provides the outcome of the probabilities multiplied with the average customer profitability:

Table 6.4: Customer Profitability Probability

Customer profitabiltiy probabilty (1000 customers)	X_begin			
Y_begin	13-17	18-26	27-54	55+
<60k	36,457.79	559,929.11	326,899.96	1,973.71
60k-<350k	5,562.08	422,937.36	825,774.80	4,257.85
350k-<750k	984.60	26,243.50	202,881.33	781.61
750k+	1,011.98	54,642.27	262,837.67	784.45

(Source: FNB Internal Data)

Table 6.4 above represents the lifetime value of a 1 000 customers based on the current profitability per segment. This information needs to be adjusted for future periods and then discounted to the present value using the company discount rate.

Table 6.5: Customer Lifetime Value

Inflation rate	4%	1
Discount Rate	8%	2

Current **Please note that profit (-) loss (+)**

Average customer profit per segment	X_begin				
Y_begin	13-17	18-26	27-54	55+	Grand Total
<60k	35,812.24	497,182.72	231,700.46	808.08	765,503.49
60k-<350k	5,463.59	375,542.44	585,293.43	1,743.26	968,042.72
350k-<750k	967.17	23,302.62	143,798.42	320.01	168,388.22
750k+	994.07	48,518.98	186,294.33	321.17	236,128.55
Grand Total	43,237.06	944,546.76	1,147,086.63	3,192.52	2,138,062.97

Average CLV:	2 138.06

(Source: FNB Internal Data)

Notes:

1 – Inflation rate assumed at 4%

2 – Discount rate assumed at 8%

From table 6.5 above the potential value of a youth customer is R2 138. This type of calculation can be done for each lifestage, thereby providing an indicator of not only the value of existing customers to the organisation, but also the potential value of a customer when they join at a specific lifestage.

The value of CLV information increases when it is used in conjunction with scenario modelling. From diagram 6.5 the average CLV were shown as R2 138. In diagram 6.15 on page 171 it was shown that the probability that a customer will leave the bank is the highest in the first couple of years. In diagram 4.6 on page 116 it was

mentioned that not only has the share of wallet a positive impact on attrition, but the profitability of a customer also increases with the growth in the share of wallet.

Table 6.6: Customer Lifetime Value – Scenario Modelling (R Value)

Average CLV:	2 138.06
What if scenario	
Retention	
Increase retention with	5%
Profit/VSI	
Increase Profit/VSI	5%
New Average CLV:	4 158.02
Increase/Decrease	**94%**

(Source: FNB Internal Data)

In table 6.6 above the retention rate of the customer base was increased with 5% and the product cross-holding was increased by 5%. The impact is an increase in the potential value of youth customers for the organisation by 94%. The calculation of the new CLV is in a similar fashion than the discussion so far regarding the calculation of CLV. The attrition input data are adjusted by 5%, whilst the profit input data is adjusted upwards by 5% to incorporate the higher VSI information. This type of analysis provides a clear guideline to management on the value drivers that can have the biggest impact on the shareholder value of the organisation.

CLV analysis enables the organisation to make the following types of decisions:

- Service model – CLV provides a guideline on the type of relationship models the bank is prepared to offer to a customer or group of customers.
- Share of wallet information – CLV provides a guideline on the type of products and services that could be offered to specific customers that will maximise the value of the customer.
- Driver impact – CLV provides a line of sight on how retention, asset and liability growth, customer changes, etc., have an impact on the value of a customer and how that impact on the overall organisation value.

CLV information therefore provides direction, focus, innovation and measurement to the organisation on the most effective ways to maximise organisation value through managing the customer base.

6.4 Shortcomings and Challenges

The development of EV- and CLV models is not easy and can be controversial. The following are some of the key challenges:

- Complexity – VBM models can become complex and difficult to understand. By overdeveloping and incorporating too many variables and assumptions into the model it will become difficult to manage the outputs. Managers will start to have perceptions of a black box that they have little influence on.
- Inclusion of the unknown – the VBM models predict future value, based on current understanding. It therefore includes assumptions about the future. The information will always be directionally correct and is not an exact science. This will always create a level of uncertainty and distrust with the information.
- Data quality – VBM metrics use various information sources to align various variables to how value will be created. VBM metrics are therefore dependent on quality base data and information to be able to provide accurate information.
- Resistance to change – if the organisation's performance is good and the new information is unknown and not understood, there will be a resistance to use the information. This is further hampered if the measurement system is still focused on traditional metrics.

6.5 Summary

Various decisions are made on the pricing and offering of different service models and products to customers. All of the decisions have an impact on the organisation's value. To become a value-creating organisation, it is critical to understand how value is created within the organisation. Banks have relationships with their customers over time through the products and services that they offer. It is therefore critical to understand the value contribution that each product or customer adds to the bank.

To realise value in the future, organisations need to invest today, or even sacrifice revenue today for high returns tomorrow. Without understanding how value will be

realised over time, organisations can make short-term decisions that will be to the detriment of long-term sustainable shareholder value.

Embedded value and customer lifetime value models can be effectively used within the organisation to understand how product and customer variables have an impact on the value of the organisation. To understand how value is realised, the underlying value drivers need to be identified within the VBM metric. Despite having VBM information available at lower levels within an organisation, if the metrics are not embedded within the decision-making and measurement process, managers will not always make decisions that will benefit long-term shareholder value.

VBM metrics at the customer- and product level are not only dependent on other information frameworks for data provision, e.g. activity-based costing, but also requires an overall framework within the organisation that embeds the use of VBM principles in the day to day running of the organisation.

CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

In this chapter the research findings are explored and interpreted in relation to the proposition of the research. The evaluation of the findings is correlated to the ideas developed within the literature research. Through the evaluation, the research attempts to develop an appreciation for the application of VBM at the customer- and product level within financial institutions.

The fourth primary goal of the research (refer to paragraph 1.6 on page 9) is addressed within this chapter, namely:

D: Recommendations from the results of primary goals A, B and C.

The main primary research goals and secondary goals in the research were (refer to paragraph 1.6 on page 8):

A: The conceptualisation of the Value-Based Management framework:

A.1: The factors that lead to the focus on value creation (Chapter 2 paragraphs 2.2 – 2.4).

A.2: The organisational scope and components of VBM (Chapter 2 paragraph 2.5).

A.3: The characteristics of the prominent VBM metrics (Chapter 2 paragraph 2.6).

A.4: Key success factors for a VBM implementation (Chapter 3 paragraph 3.2).

A.5: The application of VBM at the lower levels in the organisation (Chapter 3 paragraph 3.3).

A.6: VBM within the financial services industry (Chapter 3 paragraph 3.4).

A.7: The need for VBM principles at the customer- and product level (Chapter 4).

B: Determine the use of and exposure to Value-Based Management and related principles within the organisation (Chapter 5):

B.1: To understand the most prominent measures or tools used at the various levels of the organisation for decision-making and scorekeeping.

B.2: To determine the importance of the information and tools used.

B.3: To determine the level of exposure to the concept of VBM and the perception about VBM.

C: **Evaluation of Value-Based Management metrics at the customer- and product level within the organisation** (Chapter 6).

D: **Recommendations from the results of primary goals A, B and C** (Chapter 7).

To meet the research goals the following research process was followed:

- Researching the concept of VBM (Chapter 2 paragraphs 2.2 – 2.5 and Chapter 3 paragraph 3.2).
- Researching VBM metrics (Chapter 2 paragraph 2.6).
- Researching the application of VBM at lower levels (Chapter 3 paragraph 3.3).
- Researching VBM within the banking industry (Chapter 3 paragraph 3.4).
- Researching VBM at the customer- and product levels (Chapter 4).
- Researching the current information used and the exposure to VBM within the organisation (Chapter 5).
- Investigating the application of embedded value at the product level and customer lifetime value at the customer level (Chapter 6).

In chapter 7 a summary of the research results and conclusions for each of the primary goals (A, B & C) and secondary goals are provided in paragraphs 7.2 to 7.4. In paragraph 7.5 recommendations are made to the organisation based on the results and conclusions from the first three primary goals. In paragraph 7.6 suggestions for future research are made.

7.2 Results and Conclusions of Primary Goal A: The Conceptualisation of the Value-Based Management Framework

Value creation has evolved over the last couple of years as one of the most popular business topics. Large organisations such as Coca-Cola, Dow Chemicals and Cadbury-Schweppes all proclaim that their success can be attributed to the fact that all employees within the organisation understand how value is created for shareholders.

7.2.1 Secondary Goal A.1: The Factors that Lead to the Focus on Value Creation

In 1776 Adam Smith wrote that every individual endeavours to employ his capital so that the product may be of the greatest value (Martin & Petty, 2000:3). During the last couple of years organisations were under pressure to deliver superior shareholder value. From the literature study, it can be concluded that the factors that lead to this increased focus on value creation are:

- Globalisation, information technology and changing capital market regulation are just a few changes in the market that have an impact on how businesses are managed today. Existing management theories and practices are out-dated and cannot deal with the multi-dimensional and complex problems of the business environment of today (refer to paragraph 2.2.1 on page 21).
- The resurgence of investor power, where investors became much more involved in the running of the business. Investors also put a great deal of pressure on management to increase shareholder value (refer to paragraph 2.2.2 on page 22).
- With the resurgence of investor power, management is replaced if they do not add value. To overcome the agency theory and ensure that the goals of management are in line with shareholder value creation, companies implement measurement and reward systems that reward management for creating sustainable shareholder wealth (refer to paragraph 2.2.3 on page 27).

Management had to change their objectives and for them to be successful they need to put the interests of the shareholders first (refer to paragraph 2.2.3 on page 27).

Investors require from management to create value for them, they therefore require a return on their investments (refer to paragraph 2.3.1 on page 31). Shareholders compare the return against other returns they could have earned if they invested their money elsewhere at the same risk. Investors require a return that compensates them for the risk of investing (refer to paragraph 2.3.1 on page 31). For decades research have been done to assist management, investors and analysts to understand how value is created within the organisation and how that impact on the performance of the shares on stock exchanges (paragraph 2.3 on page 28). The mismatch between financial accounting information and stock market prices (refer to paragraph 2.4 on

page 32) have led to the development of a plethora of metrics that provide information if value has been created or not (refer to paragraph 2.5.7 on page 46). Each of these metrics is praised as the ultimate descriptor of how value is created within the organisation. A new paradigm has emerged during the last decades: the objective to focus on shareholder value creation.

7.2.2 Secondary Goal A.2: The Organisational Scope and Components of Value-Based Management

Value-based management (VBM) is a framework that refers to the notion of managing to maximise shareholder value (refer to paragraph 2.5.2 on page 37). From research done by Ameels *et al.* (2002:3) there is clear unanimity, by the various proponents of VBM, to focus on shareholder value creation, but they all suggest different types of measures, systems, processes and strategy development. From the literature research there were seemingly disparate agreements on what VBM is. Some proponents define VBM with the broad-background of shareholder wealth, whilst other narrow VBM down to a single metric (refer to paragraph 2.5 on page 36).

During the research the seemingly disparate definitions are all actually contributing to a more holistic picture of VBM (refer to paragraph 2.5 on page 36). From the literature study, it can be concluded that the overarching goal of VBM is to maximise shareholder wealth. VBM is a managerial framework that links strategy, measurement and operational processes by ensuring that there is goal congruence, being the creation of value for shareholders. It therefore ensures and encourages all levels in the organisation to change their mindsets to focus on value creation. Various metrics have been developed to measure the value creation process within the organisation. Discounted cash flow to the present value at the weighted average cost of capital lies at the heart of these metrics. VBM is not unique in coordinating the various business processes, but is unique in aligning those processes to create value for shareholders (refer to paragraph 2.5.5 on page 41).

VBM is not a silver bullet or a crystal ball that will solve all the organisational problems. Value-based management is not the panacea for corporate success. The measure itself is only as good as the information it is based on and the commitment of management within the organisation. What you measure is what you will get.

7.2.3 Secondary Goal A.3: The Characteristics of the Prominent Value-Based Management Metrics

Metrics such as EVA, CFROI, MVA, SVA, etc., are believed to reflect the true business economics better than the traditional accounting-based measures. It can be concluded from the literature study, that the VBM measures are distinguished from accounting-based measures because VBM measures include all of the following (refer to paragraph 2.6.1 on page 49):

- Cash flow analysis;
- Adjusting future cash flows for the time value of money; and
- The inclusion of the cost of capital.

The most prominent metrics are:

- EVA is the net operating profit after tax less the weighted average cost of capital (refer to paragraph 2.6.2 on page 53).
- CFROI determines the relationship of cash generated within the organisation relative to the cash invested (refer to paragraph 2.6.3 on page 58).
- SVA is the difference between the present value of incremental cash flow before new investment and the present value of investment in fixed and working capital (refer to paragraph 2.6.4 on page 59).
- CVA is the operating cash flows less sinking fund depreciation less a capital charge on gross investment (refer to paragraph 2.6.5 on page 61).
- TSR/TBR is an internal rate of return (IRR) measure that compares the starting value of a business with the net cash flows realising in the period, plus the value of the business at the end of the period (refer to paragraph 2.6.6 on page 62).
- A couple of other VBM metrics like MVA, EV and the equity-spread approach exist (refer to paragraph 2.6.7 on page 63).

7.2.4 Secondary Goal A.4: Key Success Factors for a Value-Based Management Implementation

To reorganise an organisation to focus on value creation for shareholders requires time, resources and patience. The implementation of VBM within some organisations has been a big success; whilst other organisations only had mediocre success and

other abandoned the program after less than 5 years (refer to paragraph 3.1 on page 68).

There is no guarantee that the attempt of an organisation to implement VBM will be a sounding success, but there are a couple of characteristics that, if present, will enhance the chances of success. It can be concluded from the literature study, that the characteristics are:

- Commitment to shareholder value creation from top management and the organisation at large (refer to paragraph 3.2.1 on page 74).
- Linking incentive compensation to value creation (refer to paragraph 3.2.2 on page 75).
- Training, education and communication (refer to paragraph 3.2.3 on page 78).
- Customised VBM framework (refer to paragraph 3.2.4 on page 79).
- Business unit empowerment (refer to paragraph 3.2.5 on page 80).
- Keep it simple and broad (refer to paragraph 3.2.6 on page 81).
- The VBM circle – closing the loop (refer to paragraph 3.2.7 on page 82).

Although the process of VBM implementation takes time and is difficult, there are significant benefits that organisations will realise (refer to paragraph 3.2 on page 73):

- Better and smarter strategic decisions will be made.
- The employees of the organisation are dedicated to the sustainable long-term value of the organisation.
- The decisions and actions of employees are aligned to the organisation's goal of creating shareholder wealth.
- There will also be goal congruence between the various business units of the organisation through the single goal of creating shareholder wealth.

7.2.5 Secondary Goal A.5: The Application of Value-Based Management at the Lower Levels in the Organisation

Day-to-day decisions are made at the lower levels within the organisation. It is therefore critical that VBM is cascaded down to the lower levels within the organisation to ensure that the decisions taken are in line with the overall goal of the organisation. It is not always easy to calculate value creation at the lower levels within the organisation. One of the key challenges is the allocation of capital to lower levels (refer to paragraph 3.5 on page 98).

To measure the success to create value within various business units and departments of the organisation, VBM proponents recommend the use of value drivers through value mapping (refer to paragraph 1.6 on page 8). This implies that the organisational goal of shareholder value maximisation is broken down into the core value drivers, and each business unit would focus on the specific drivers that they have an impact on. The intent of the value map is to highlight the linkages between the value drivers of the organisation and the value of the organisation. The real value of value mapping will only realise when management uses the value drivers in decision-making and the organisational processes (refer to paragraph 3.3.4 on page 92). Organisations too often base their decisions on short-term quarterly financial information. This information just tell us how well we performed. By understanding the value drivers of an organisation, managers can then develop a forward-looking managerial tool that will predict the outcome of decisions based on the core value drivers of the business (refer to paragraph 3.3.4 on page 92).

7.2.6 Secondary Goal A.6: Value-Based Management within the Financial Services Industry

Financial institutions had to familiarise themselves to deal with changing customer behaviour, technology continuously becoming more advanced, declining margins and changing markets and globalisation. It is not surprising that some of the first implementers of VBM were banks (refer to paragraph 3.4 on page 93). Managers within banks are required to weigh complex trade-offs between growth, return, and risk ensuring successful banking operations. Lloyds TSB, Barclays and The Royal Bank of Canada are all using VBM to create shareholder wealth. Their results are impressive. The Royal Bank of Canada has increased their economic profit fivefold from 1996 to 2000 (refer to paragraph 3.4 on page 93).

From the literature study, it can be concluded that financial institutions need to ensure that they price individual customers correctly to reflect not only the cost to serve, but also the cost of capital and a return that would compensate for the specific customer's associated risk profile (refer to paragraph 3.4 on page 94). To survive within a continuously changing and complex environment, organisations need to prioritise their resources to those activities or projects that will provide the highest return with the associated risk. Shareholders within financial services companies expect the

maximisation of shareholder value to be the primary focus within the organisation (refer to paragraph 3.5 on page 98).

7.2.7 Secondary Goal A.7: The Need for Value-Based Management Principles at the Customer- and Product Level

On a daily basis various strategic, tactical and operational decisions are made that have an impact on the products a company offer to customers or groups of customers. Financial institutions are about providing various products to customers over a lifetime (refer to paragraph 4.2 on page 100). Not all customers have the same behavioural patterns. Customer- and product profitability do not provide a holistic view of the potential value of a specific product or customer over a set period. Customer- and product profitability do not incorporate the cost of capital and associated risk that can differ from customer-to-customer and product-to-product (refer to paragraph 4.2 on page 101). From the literature study, it can be concluded that for organisations to be value creators it is imperative to apply VBM principles at the customer- and product level for decision-making and rewarding. The different groups of products, customers and transactions will require different amounts of equity capital. The higher and bigger the associated risk, the more capital will be required (refer to paragraph 4.2 on page 101). Because the various lines of businesses are associated with specific products, customers and transactions, VBM calculations should be extended from the lines of businesses to products, channels and customers (refer to paragraph 4.2 on page 103).

Banks therefore need to predict future lifestages of a segment of customers and the products and services that they would require (refer to paragraph 4.2 on page 101). Customer lifetime value analysis provides information to managers on how a customer adds or destroys value, and it also provides the ability to understand how the value of the customer will change if the underlying value-drivers change. This information can assist organisations to determine where to follow acquisition strategies, cross-selling strategies, cost containment strategies or hybrids of these strategies (refer to paragraph 4.2 on page 101). Customer lifetime value predicts future cash flows adjusted to net present value with the cost of capital that incorporates the associated risk of a customer or segment and is therefore a true VBM metric.

Throughout a customer's different lifestages he or she will use various products and services. Banks need to understand the long-term value that can realise through the time that the customer uses various products (refer to paragraph 4.4 on page 115). Financial institutions have a considerable upfront cost to acquire new business. It is therefore important to understand the long-term value of a product to ensure that the organisation is earning the expected required return to create shareholder value over the long-term. EV's are currently used especially within the insurance industry. The EV of an organisation is the present value of in-force business plus the shareholders' free surplus. EV's are therefore a forward long-term analysis of the potential returns from a product (refer to paragraph 4.4 on page 122). The adjustment of returns to reflect cash flows is incorporated within the calculation as well as the discounting of future cash flows to the present value using the cost of capital and the associated risk of the asset or liability. EV's are therefore a true VBM metric and can be successfully applied within the banking industry (refer to paragraph 4.4 on page 122).

7.3 Results and Conclusions of Primary Goal B: To Determine the Use of and Exposure to Value-Based Management and Related Principles within the Organisation

Businesses are about creating value to their shareholders. VBM has been proposed as a management tool that assists organisations to focus its activities and resources around the creation of value for shareholders. VBM can assist organisations to overcome the following challenges (refer to paragraph 5.1 on page 124):

- Lack of goal congruence and the agency theory – VBM provides a single goal for managers and the various components within the business – creating shareholder wealth.
- Long-term sustainable value – Employees are not only focused on the short-term but are committed to the long-term sustainability of the organisation.
- Management focuses energy and resources on the core value drivers of the organisation and how to maximise value.

Managers from different clusters and levels within FNB completed a questionnaire on the current information used for target setting and decision-making as well as their level of knowledge on VBM.

7.3.1 Secondary Goals B.1 and B.2: The Prominent Measures or Tools used at the Various Levels of the Organisation and the Importance of Them

The most prominent measure used within the organisation is the increase in net income before tax (NIBT). The other two key business targets within the organisation are the growth in assets and liabilities and the cost to income ratio (refer to paragraph 5.4.1 on page 144).

To measure the success of the business, the most prominent information used to measure business success is NIBT. Other key information inputs are sales data, cost to income information and market share data (refer to paragraph 5.4.1 on page 144).

The most prominent information used within decision-making is the impact on business unit profit. Other information that is used by the majority of respondents and also rated as important are return on investment, meeting sales targets and impact on the cost to income ratio (refer to paragraph 5.4.1 on page 145).

7.3.2 Secondary Goal B.3: To Determine the Level of Exposure to the Concept of Value-Based Management and the Perception about Value-Based Management

Most respondents have been exposed to VBM through an article, presentation or have read a book on VBM. The VBM metrics that respondents had the most exposure to were NPV analysis, EV and EVA. The general perception of VBM metrics is in general from good to very good. Although no respondent felt that VBM is another fad, the minority of respondents felt that VBM is critical for survival in today's business world (refer to diagram 5.4.2 on page 146).

7.3.3 Observations from the Research

From the literature and empirical research the following conclusions or observations are made:

Observation 1:

Management in FNB believe in shareholder value creation, but do not practice it (refer to paragraph 5.4.3 page 146).

Observation 2:

Management focused on single short-term measures not on long-term sustainable value creation (refer to paragraph 5.4.3 on page 146).

Observation 3:

Business unit goals are more important than the organisational goals (refer to paragraph 5.4.3 on page 147).

From the results it was apparent that these managers experience the same challenges that many other managers experience worldwide (refer to paragraph 5.5 on page 148). They are continuously challenged to make trade-offs between short-term and long-term goals and the performance of the individual business units often takes preference. Despite agreeing that the shareholder should take centre stage, short-term metrics such as net income before tax, actual performance vs. budget and ROE still determine predominantly the business targets. These targets and measures do not focus on long-term value creation for shareholders where the cost of capital and risk, time value of money and the usage of cash flow rather than accounting earnings are used (refer to paragraph 5.5 on page 148).

7.4 Results and Conclusions of Primary Goal C: Evaluation of Value-Based Management Metrics at the Customer- and Product Level within the Organisation

Various decisions are made based on the pricing of customers, different service models for customers, the various products that are offered to customers, etc. All of

the decisions impact on the organisation's value. It is critical for banks to understand the value contribution that each product or customer makes to the bank.

From the empirical study it can be concluded that embedded value and customer lifetime value models can be effectively used within the organisation to understand how product and customer variables have an impact on the value of the organisation (refer to paragraph 6.5 on page 177). These types of models and information could be available within an organisation, but if it is not embedded within the decision-making and measurement processes, managers will not always make decisions that will benefit long-term shareholder value (refer to paragraph 6.5 on page 177).

7.4.1 Embedded Value

The original purpose for the application of EV's at FNB was to use EV's as a reward mechanism for sales channels when a product is sold. To calculate the EV of a product, the use of value mapping will help to identify all the possible drivers that have an impact on the value of the organisation (refer to paragraph 3.3.3 on page 90).

From the empirical study, it can be concluded that the key value drivers incorporated within the EV calculation are:

- Current profitability information – cost and revenue information and the underlying drivers that have an impact on the cost and revenue (refer to paragraph 6.2.1.1 on page 154).
- Future projections – generic assumptions such as inflation must be incorporated, as well as specific assumptions like future growth prospects for specific products (refer to paragraph 6.2.1.2 on page 158).
- Attrition – account attrition is a key driver of the value of a product to the group. Due to high acquisition cost, it is critical to maximise the length of the relationship (refer to paragraph 6.2.1.3 on page 159).
- Capital allocated – the required capital with its associated cost should be allocated for the specific products (refer to paragraph 6.2.1.4 on page 161).
- Discounting to the present value – future value should be discounted to the present value using the weighted average cost of capital method (refer to paragraph 6.2.1.5 on page 161).

Both marginal and fully absorbed EV's are critical for the business to understand the underlying cost drivers and the impact of that on the value of the organisation. EV's are used within the organisation for the following purposes (refer to paragraph 6.2.2.3 on page 168):

- Sales measurement and sales rewarding;
- Supporting new business cases; and
- Educate business on the underlying value drivers of products.

The application of EV at the product level is a good example of how VBM can be applied at the product level within the financial services industry.

7.4.2 Customer Lifetime Value

Customer lifetime value is a crucial metric to provide a holistic understanding of the various drivers at a customer level that have an impact on the overall value creation within the organisation. Understanding customer lifetime value will impact and steer the actions of an organisation. Customer lifetime value modelling (CLV) is currently developed within FNB for the use in business cases for specific segments. The use of statistical modelling through propensity analysis is crucial within the customer lifetime value (CLV) model (refer to paragraph 6.3 on page 175).

From the empirical study, it can be concluded that the key steps to determine the CLV of a customer are (refer to paragraph 6.3 on page 169):

- Predicting the next lifestage – this provides the propensity of the products and services that a customer would require over a lifetime with the bank.
- Understanding the current profitability for each lifestage – this gives an indication of the possible future profits that can realise as customers use products and services in future lifestages.
- Customer attrition rates – to maximise value from a customer, the bank aims to maximise the length of the relationship over time.
- The allocation of capital with all the variables can then be used to predict future profits that should also be discounted to the present value.

CLV analysis enables the organisation to make the following types of decisions (refer to paragraph 6.3 on page 175):

- Service model – CLV provides a guideline on the type of relationship models the bank is prepared to offer to a customer or group of customers.
- Share of wallet Information – CLV provides a guideline on the type of product and services that could be offered to specific customer that will maximise the value from the customer.
- Driver impact – CLV provides line of sight on how retention, asset and liability growth, customer changes, etc., have an impact on the value of a customer and how that impact on the overall organisational value.

From the empirical study, it can be concluded that CLV information provides direction, focus, innovation and measurement to the organisation on the most effective ways to maximise organisation value through managing the customer base.

7.5 Primary Goal D: Recommendations

7.5.1 Background

As discussed in paragraph 1.6 on page 8 there are four primary research goals:

A: The conceptualisation of the VBM Framework.

B: Determine the use of and exposure to VBM and related principles within the organisation.

C: Evaluation of VBM metrics at the customer- and product level within the organisation.

D: Recommendations from the results of primary goals A, B and C.

During the research, a couple of key themes within primary research goals A, B and C came to the surface. The following discussion will highlight this and provide the background to the three recommendations made.

A: The conceptualisation of the VBM Framework. During the analysis of the research results from the two empirical studies, key considerations were formed from the literature research results:

I. You need to walk the talk. If organisations proclaim their commitment to shareholder value it needs to be reflected within the organisational processes.

This includes business targets, measurements and rewards (refer to paragraph 2.5.6 on page 43). What you measure is what you get. Measurement and rewarding are key factors for successful VBM within the organisation (refer to paragraph 3.2.2 on page 75).

II. To realise the above, it is critical to cascade VBM concepts down to lower levels within the organisation (refer to paragraph 3.3 on page 84).

III. VBM at lower levels requires therefore the application of VBM at the customer- and product level (refer to chapter 4 on page 99).

IV. VBM creates an environment where:

   i. Goal congruence centres on shareholder value (refer to paragraph 3.2 on page 73).

   ii. Management is able to make better trade-offs between short-term goals and long-term goals (refer to paragraph 3.2 on page 73).

B: Determine the use of and exposure to VBM and related principles within the organisation. From the empirical research the following issues were identified:

I. Middle to senior management talk about shareholder value, but shareholder value is not practiced in their daily activities (refer to paragraph 5.4.3 on page 146). This is evident from the following:

   a. The lack of VBM within business targets and measures (refer to paragraph 5.4.3 on page 146).

   b. The concern from management that short-term goals take preference (refer to paragraph 5.4.3 on page 146).

   c. The prominent measures and targets used are traditional accounting biased and do not reflect value creation (refer to paragraph 5.4.3 on page 146).

   d. Business unit targets take preference over group targets (refer to paragraph 5.4.3 on page 146).

II. Despite a very strong owner-manager culture within FNB, there is a lack of goal-congruence and long-term sustainable value creation. This can be attributed to the use of single-period traditional accounting measures and targets.

III. The challenge however is the lack of overwhelming support for VBM by management (refer to paragraph 5.4.2 on page 146). To implement VBM, one of

the key success factors is the full support from management to focus on shareholder value creation (refer to paragraph 3.2.1 on page 74).

C: Evaluation of VBM metrics at the customer- and product level within the organisation. From the empirical research the following were identified:

I. The application of EV's and CLV at the product and customer base shows that VBM can be cascaded down to the lower levels of the organisation.

II. Although this information is available within the organisation, there is a lack in the use of this information in the core business targets and measures (refer to paragraph 5.4.1 on page 145).

With the above as background, the following three recommendations are made:

7.5.2 A Holistic Implementation of Value-Based Management Principles within the Organisation

Management within FNB believes that shareholder value creation should be at the centre stage of the organisation. Despite this management believes that there is a lack of goal congruence and focus on long-term sustainable value creation within FNB. This is a result of the following two factors (refer to paragraph 7.3.3 on page 188):

- FNB's business targets and measures are traditional accounting biased; the organisation is therefore short-term focused and value creation is not reflected within the business targets properly; and
- The business unit performance takes preference. Business units within FNB are rewarded on their current year financial performance.

From the literature research VBM is praised for its ability to create goal congruence by focusing all processes within the organisation to create shareholder value. VBM is also praised for its ability to assist management in making better trade-offs between short-term goals and long-term goals (refer to paragraph 7.2.2 on page 181).

It is therefore recommended that the organisation implements a holistic VBM framework to ensure that the individual business units are all focused on one goal, being sustainable value creation for shareholders. To ensure that the various business units have goal congruence, there needs to be an understanding of how every

business unit adds value to the organisation at large. This would assist the organisation to allocate scarce resources to projects and business units that would give the highest return.

To implement a VBM framework within the organisation management needs to consider the following (refer to paragraph 7.2.2 on page 181):

- Goal and Strategy – the creation of shareholder wealth is the overall goal, this will impact the strategy of the organisation on how the goal will be achieved. The various business units will all focus on the overall goal of shareholder wealth.
- Measure – to measure value an organisation must choose an appropriate measure that would meet the needs of the organisation. The metric chosen should reinforce the strategy of the organisation. Through the use of value-mapping the organisation can cascade the measure and VBM into the lower levels.
- Corporate processes – within the corporate management processes management must have an indication of how to create, manage and measure value creation within the organisation.
- Operations – the VBM framework needs to take into account the various operations and decisions taken at this level. Employees need to instil VBM as part of their day-to-day operations.

To ensure a successful VBM implementation, management must ensure that the following characteristics are present (refer to paragraph 7.2.4 on page 182):

- Commitment to shareholder value creation from top management and the organisation at large. Currently the minority of FNB management perceives VBM as critical for business survival.
- Linking incentive compensation to value creation. Managers in business units need to be rewarded for creating shareholder value for the organisation instead of only focusing on short-term accounting profits.
- Training, education and communication to the various levels of staff regarding VBM.
- A customised VBM framework. The framework must support the business and not visa versa.

- Business unit empowerment. The current FirstRand philosophy empowers business units. This empowerment should not be to the detriment of the overall goal of shareholder value creation.
- Keep it simple and broad. The system should not be too complex. It must be easy to maintain, manage and should be understood by all.
- The VBM circle – closing the loop. One year's learning needs to be fed back into the system for the next year.

7.5.3 The Usage of Value-Based Management Principles and Metrics within the Measurement and Rewarding System

Measurement and rewarding is one of the key success factors of a VBM implementation. The current targets and measures used within FNB are single-period measures based on traditional accounting information. The current measures drive the current behaviour of management. Management puts the goals of their respective business units first, and gives preference to short-term goals sometimes to the detriment of long-term sustainable shareholder value creation (refer to paragraph 7.3.3 on page 188). The measurement and rewarding system steer the organisation and individual behaviour to create shareholder value.

It is therefore recommended that the principles of VBM is firstly implemented within the measurement and rewarding system of FNB to ensure that the behaviour of management change away from the current status quo. By rewarding and measuring management on value creation, management will invest in obtaining quality information that would assist in better decision-making that is focused on sustainable value creation.

The following needs to be addressed at the various levels within FNB to ensure value creation:

- The most appropriate measure linking performance to value creation.
- The appropriate target level of performance for value creation.
- Linking rewards to the performance achieved.

Barclays Bank Plc., a new entrant into the South African market, views the measurement of value creation by managers as a key element of their value added performance measurement system (refer to paragraph 3.4 on page 95).

7.5.4 Application of Value-Based Management at the Customer- and Product level

From the literature research the various sources continuously stressed the importance that each and every staff member needs to understand how value is created and that VBM should be cascaded down to the lower levels within the organisation (refer to paragraph 7.2.5 on page 183). Despite the availability of EV and CLV information within FNB the use of the information is limited and is not used in the day-to-day decision-making process.

It is therefore recommended that the organisation should invest considerable time and money to ensure that quality information is available to enable the organisation to make informed decisions on the various products and services offered to specific customers that would generate long-term value for the organisation.

For FNB to be a value creating organisation it is imperative to apply VBM principles at the customer- and product level for decision-making. It is also critical to measure business units and managers on how they increase value at the customer- and product level.

7.6 Suggestions for Further Research

In the course of the current study, a number of other areas were identified where further research could be beneficial:

South African Value-Based Management Study:

A study that research the usage and application of VBM within the South African context. No resources or articles could be found during the research that focus on the adoption of VBM within South Africa. A few articles or studies were available on a couple of VBM metrics, such as EVA but no research on the VBM framework application or adoption was found. It is my belief that the adoption is fairly low compared to international studies.

Similar Study:

A similar research study, focusing on the application of VBM at a customer- and product level within South African service industries compared to international research. In this way service industries can establish global benchmarks in the area of VBM application.

Value-Based Management Metrics:

To investigate the most appropriate VBM metric at a specific level within the organisation. This research only focused on the use of embedded value and customer lifetime value at the customer- and product level respectively.

ANNEXURE A: QUESTIONNAIRE

5:05 PM

YUNIBESITI YA BOKONE-BOPHIRIMA
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31 July 2005

Lectori Salutem

Dear Sir/Madam

Masters degree Research: PFR Jordaan

This is to certify that the abovementioned candidate is currently a registered student at the North-West University, Potchefstroom Campus (formerly the Potchefstroom University before the merger in 2004) for a Masters degree in Management Accounting. He has already passed the exam papers with course work and currently busy with his research on Value-Based Management in the Financial Services Industry. You are one of the selected participants within FNB and may I ask you for your support to complete the relevant questionnaire as attached.

I do undertake to see that all information will be kept confidentially and you can give an indication if you do want a report afterwards.

Thank you for your support and cooperation to this.

Yours faithfully

PROF S S VISSER
(PROGRAM LEADER : MANAGEMENT ACCOUNTANTS' TRAINING)

Questionnaire:

This questionnaire is conducted as part of research for an M.Com Degree at the North-West University

Dear colleague

I am currently studying towards an M.Com degree in Management Accounting at the North-West University. My research theme is value-based management (VBM). I would appreciate if you would assist me in completing the following questionnaire, and return it to me by 15 August 2005. Michael Jordaan (CEO of FNB) has given me the approval to conduct this research within FNB.

Background

Value-based management is another modern-day "hot" topic that claims to change financial management at the highest level in some of the world's largest companies. Economic value added, cash flow return on investment, market value added, shareholder value analysis are just a few of the new terminologies and concepts within the VBM framework that management and organisations are bombarded with. Most of these concepts are promoted and sold as the ultimate solution for corporate success by various consulting firms. Each firm proclaims that its unique measure would assist business in creating value.

The aim of this questionnaire is:

- To understand the most prominent measures or tools used at the various levels of the organisation for decision-making and scorekeeping
- To determine the level of confidence with the information and tools used
- To determine the level of exposure to the concept of VBM and the perception about VBM

Kind regards

Pieter Jordaan
FNB Business Intelligence
Tel: 371-2233
E-mail: pjordaan@fnb.co.za

Background Information:

1. Position within organisation (please tick)

FNB Exco member	☐
Cluster Exco member	☐
BU Exco member	☐
Financial (CFO, Fin manager)	☐
Manager	☐
Knowledge worker	☐
Business development officer	☐
Other	☐

2. Type of environment within the bank

Segment BU	☐
Channel BU	☐
Support BU	☐
Product BU	☐

If you would like to receive feedback from the research please complete the following:

Name	
E-mail	

1. Current level of satisfaction with available information

Various information sources and tools are used on a daily basis for decision-making and to measure the success of an organisation or a specific business unit. Management uses a broad spectrum of data, ranging from information such as Core Headline Earnings in the financial statements to non-financial data such as market share or sales information for decision-making.

Information used to measure the success of the business
On regular intervals (monthly, quarterly, yearly, etc.) we use information to measure how successful FNB is. To be able to measure how successful we are, we need to have set certain targets for FNB. Although we have the g2g1in3 vision for the business, there can be different focuses for business units that can relate to different targets.

Within every business, there are numerous targets set. The importance of these targets can vary based on the maturity of the organisation or business unit.

3. What are the core explicit business targets you would like to achieve and please rate the importance of such? (Please tick the appropriate boxes)

Use? – Tick if yes
1 – not important
3 – important
5 – critical

Description	Use?	1	2	3	4	5
Increase net income before tax (NIBT)	☐	☐	☐	☐	☐	☐
Core Headline Earnings target	☐	☐	☐	☐	☐	☐
Return on equity target	☐	☐	☐	☐	☐	☐
Cost to Income ratio	☐	☐	☐	☐	☐	☐
Market Share Growth	☐	☐	☐	☐	☐	☐
Focus on explicit shareholder value creation	☐	☐	☐	☐	☐	☐
Growth in Assets or Liabilities	☐	☐	☐	☐	☐	☐
Do better than budget	☐	☐	☐	☐	☐	☐
Other? (Please list)	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐

To be able to measure the success of a business unit in achieving its targets and goals, there are various metrics that can be used as input in the measurement process for a business unit.

4. Which of the following information do you consider to measure the success of your business/ business unit and please rate the importance of the specific metric? (Please tick the appropriate boxes)

Use? – Tick if yes
1 – not important
3 – important
5 – critical

Description	Use?	1	2	3	4	5
Net income before tax (NIBT)	☐	☐	☐	☐	☐	☐
Core Headline Earnings	☐	☐	☐	☐	☐	☐
Return on equity	☐	☐	☐	☐	☐	☐
Return on investment	☐	☐	☐	☐	☐	☐
Cost to Income ratio	☐	☐	☐	☐	☐	☐
Market Share	☐	☐	☐	☐	☐	☐
Price earnings ratio	☐	☐	☐	☐	☐	☐
Sales data	☐	☐	☐	☐	☐	☐
Earnings per Share (EPS)	☐	☐	☐	☐	☐	☐
Profit per product/customer	☐	☐	☐	☐	☐	☐
Embedded Value	☐	☐	☐	☐	☐	☐
Residual Income	☐	☐	☐	☐	☐	☐
Cash Value Added	☐	☐	☐	☐	☐	☐
Economic Value Added (EVA^{TM})	☐	☐	☐	☐	☐	☐
Cash Flow Return on Investment (CFROI)	☐	☐	☐	☐	☐	☐
Market Value Added (MVA)	☐	☐	☐	☐	☐	☐
Shareholder Value Added (SVA)	☐	☐	☐	☐	☐	☐
Other (please list)	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐

Information used to measure the success of the business

When we measure the success of our business, we always look at the financial statements. During the decision-making process for a new business case we sometimes use other measures, such as Net Present Value.

5. Which information do you consider during the decision-making process (e.g. for new business cases), and how important is the information? (Please tick the appropriate boxes)

Use? – Tick if yes
1 – not important
3 – important
5 – critical

	Use	1	2	3	4	5
Impact on business unit profit	☐	☐	☐	☐	☐	☐
Possible growth in headline earnings	☐	☐	☐	☐	☐	☐
Return on equity	☐	☐	☐	☐	☐	☐
Return on investment	☐	☐	☐	☐	☐	☐
Impact on Cost to Income ratio	☐	☐	☐	☐	☐	☐
Market Share Changes	☐	☐	☐	☐	☐	☐
Meeting sales targets	☐	☐	☐	☐	☐	☐
Costing analysis	☐	☐	☐	☐	☐	☐
Profit impact on group (replace SLA's with actual cost)	☐	☐	☐	☐	☐	☐
Cash Flow Analysis	☐	☐	☐	☐	☐	☐
Net Present Value analysis	☐	☐	☐	☐	☐	☐
Embedded Value	☐	☐	☐	☐	☐	☐
Residual Income	☐	☐	☐	☐	☐	☐
Cash Value Added	☐	☐	☐	☐	☐	☐
Economic Value Added (EVA™)	☐	☐	☐	☐	☐	☐
Cash Flow Return on Investment (CFROI)	☐	☐	☐	☐	☐	☐
Market Value Added (MVA)	☐	☐	☐	☐	☐	☐
Shareholder Value Added (SVA)	☐	☐	☐	☐	☐	☐
Other (please list)	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐

General

6. There are various viewpoints on the measurements and the use of it. Please rate how strongly you agree or disagree with the following statements? (1 Strongly disagree – 5 Strongly agree)

Description	1	2	3	4	5
The current information is skewed by accounting policies such as depreciation and do not reflect the true business activities.	☐	☐	☐	☐	☐
In reality the financial performance of the individual business unit takes preference.	☐	☐	☐	☐	☐
I am totally satisfied with the current level of information to base my decisions on.	☐	☐	☐	☐	☐
I can't manage the outcome of my measures due to external market conditions.	☐	☐	☐	☐	☐
I can't manage the outcome of my measures due to the impact other parties within the group has on my business.	☐	☐	☐	☐	☐
I believe that the ultimate measure should reflect the shareholders viewpoint.	☐	☐	☐	☐	☐
Measuring our sales performance and market share growth should be the core focus.	☐	☐	☐	☐	☐
Cost is our problem. Just focus on the Cost to Income Ratio.	☐	☐	☐	☐	☐
The information we use create conflicting signals on the actions we need to take.	☐	☐	☐	☐	☐
There is a continuous conflict between short-term profit goals, and long-term investment opportunities. The first takes preference most of the time.	☐	☐	☐	☐	☐
I fully understand how my decision impact shareholder value.	☐	☐	☐	☐	☐

7. How important is the following for you to consider as inputs into a measurement tool? (Please tick the appropriate boxes)

1 – not important
3 – important
5 – critical

	1	2	3	4	5
Cash flow analysis	☐	☐	☐	☐	☐
Time value of money	☐	☐	☐	☐	☐
Cost of capital	☐	☐	☐	☐	☐

2. Value-Based Management

What is value-based management?

The overarching goal of value-based management (VBM) is to maximise shareholder wealth. VBM is a formal organisational process that links strategy, measurement and operational processes by ensuring that there is goal congruence. It therefore ensures and encourages all levels in the organisation to change their mindset to focus on value creation. VBM is associated with the use of value-based metrics. Discounted cash flow lies at the heart of these metrics. The metrics therefore have the following distinct features:

- Based on cash flow analysis
- Adjusted for the time value of money
- Includes the cost of capital

8. What has been your exposure to value-based management so far? (Please tick the appropriate box)

First time I hear about this	☐
Been exposed to VBM through an article or a presentation	☐
Have read a book about value-based management	☐
Have dealt with VBM intensively through work	☐

9. There are a couple of well-known metrics within the VBM framework. What has been your exposure to them, and how do you rate them? (Please tick the appropriate boxes)

Exposure – Tick if yes
1 – interesting, but not worth it
3 – good
5 – very good

Description	Exposure	1	2	3	4	5
Embedded Values	☐	☐	☐	☐	☐	☐
Residual Income	☐	☐	☐	☐	☐	☐
Cash Value Added	☐	☐	☐	☐	☐	☐
Economic Value Added (EVA™)	☐	☐	☐	☐	☐	☐
Shareholder Value Added (SVA)	☐	☐	☐	☐	☐	☐
Equity-spread approach	☐	☐	☐	☐	☐	☐
Net Present Value Analysis (NPV)	☐	☐	☐	☐	☐	☐
Residual Income	☐	☐	☐	☐	☐	☐
Total Shareholder return	☐	☐	☐	☐	☐	☐
Other?	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐

It has been said that value-based management changes financial management at the highest levels in some of the biggest corporations worldwide. Various prominent consultancies such as McKinsey, Stern Steward and PWC promote VBM implementations or specific metrics.

10. What is your perception about VBM?

Just another fad	☐
Interesting, there are a few interesting concepts	☐
Something to take notice of	☐
Critical for survival in today's business world	☐

Thank you for your time and effort.

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