

**Creating and Measuring Shareholders' Value through Acquisition  
A Case Study on Sage Plc**

By

Priethieban Naidoo  
(student no 201506650)

Submitted in partial fulfilment of the requirements for the degree of

**MASTERS IN BUSINESS ADMINISTRATION**

Graduate School of Business, Faculty of Management  
University of KwaZulu-Natal (Durban)

Supervisor: Dr Mark Dent

31 January 2006

## **DECLARATION**

I declare that this research has not being previously accepted for any degree and is not being currently submitted in candidature for any degree. Where use is made of work of others, it has been duly acknowledged in the text.

P Naidoo

21 April 2006

## **ACKNOWLEDGEMENTS**

Completing a dissertation is time consuming and challenging. This would not have been possible without the help of various individuals. My appreciation goes out to everyone who have supported and encouraged me during this process.

I would like to thank my supervisor Dr Mark Dent for his contribution and assistance in finalising this dissertation.

I would also like to thank my study group members for their constant support and motivation, in particular Salvador Mildred Francis, Leslie Pillay and the late Ashish Boadsing. I could not have done this without your help.

My sincere gratitude is extended to the management and finance department at Sage plc for eagerly providing information and guiding me in the right direction.

I would like to thank Theresa Lütge-Smith for her assistance with the final editing.

Lastly, I would like to thank my wife, Dolly and children Sharlene, Keelin and Sashen, for their love, support and endless understanding.

## **ABSTRACT**

The key corporate objective of any company should be the constant creation of shareholder value. This can be achieved either organically by earning revenue from the value proposition they offer customers or through mergers and acquisitions. Sage plc, a FTSE 100 company on the London Stock Exchange is a stalwart contender that believes an effective growth strategy has to be the right kind of acquisition—a business combination that increases the power of the customer value proposition allowing the combined entity to achieve genuine organic growth. As one CEO put it, —believe that you don't get better by being bigger, you get bigger by being better.” (Internet Ref 7) This study undertakes to evaluate Sage plc's strategy of protecting and improving shareholder value through acquisitions. It will also determine whether all management's thoughts and actions, from strategizing with respect to competitive positioning and cutting costs and streamlining operations to creating a productive environment that provides employees with economic benefits and opportunities for advancement, correlate to preserve and increase the organic growth of the firms they are managing and whether effective shareholder value was created or diminished over the designated period of major acquisitions.

In order to address this issue the thesis presents a general view on the different approaches used to create shareholder. The use of mergers and acquisitions, to increase growth in an organisation, is discussed and analysed. A key aspect to value creation is measurement. A suitable value based management metric must be established in order to measure value creation. The study will examine all different metrics used to measure shareholder value creation and find the most appropriate measurement.

Finally this study makes recommendations, based upon its finding on value creation and measurement.

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## LIST OF ABBREVIATIONS USED

<b>Abbreviation</b>	<b>Description</b>
AVE	Added Value on Equity (a measure of the Boston Consulting Group)
BCG	Boston Consulting Group
BU	Business Units
C%	Percentage of the Cost of Capital
CAPM	Capital Assets Pricing Model
CEO	Chief Executive Officer
CF	Cash Flows
CFO	Chief Financial Officer
CFROI	Cash Flow Return on Investments
CFROI®	Cash Flow Return on Investments
CVA®	Cash Value Added - also known as Added Value on Equity. (a measure of the Boston Consulting Group)
CVA	Cash Value Added
DCF	Discounted Cash Flow
DR	Real Discount Rate
EBIT	Earnings before Interest and Taxation
EBITA	Earnings before Interest Taxation and Amortization
EPS	Earnings per Share
EVA®	Economic Value Added
FCF	Free Cash Flows
FIFO	First in First out
FTSE	Top 100 listed companies on the London Stock Exchange
GAAP	Generally Accepted Accounting Practice
GGM	Gordon Growth Model
HC	Holt Consulting
IRR	Internal Rate of Return
LBO	Leveraged Buy-Out
LIFO	Last in First out
M&A	Mergers and Acquisitions

MVA	Market Value Added
NOPAT	Net Operating Profit after Taxes
NOPAT(a)	Net Operating Profit after Taxes after adjustments for EVA
OCF	Operating Cash Flow
OCFD	Operating Cash Flow Demand
P/E ratio	Price to Earnings Ratio
R & D	Research and Development
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
ROIC	Return on Invested Capital
RONA	Return on Net Assets
SHV	Shareholder Value
SME	Small and Medium Sized Business
SME's	Small and Medium Sized Businesses
SSC	Stern Stewart and Company
SVA	Shareholder Value Added
SWOT	Strengths, Weakness, Opportunities and Threats
TC	Total Capital
TC (a)	Total Capital after the adjustments for EVA
TRS	Total Returns to Shareholders
TSR	Total Shareholders Returns
VBM	Value Based Management
VROI	Value Return on Investment
WACC	Weighted Average Cost of Capital

# **1. CHAPTER ONE – Background**

## 1.1 Introduction

This chapter deals with the background, significance and qualitative research issues of the dissertation topic. The purpose, scope and limitations of the case study are also identified. The aim of the study is to explore the motivation behind the practices and processes required to create, measure and deliver shareholders' value through acquisition. The resources and practices outlined however extend well beyond the individual firm—the Sage Group plc-- on which the case study is based. The challenge was to identify an accurate view of collective capabilities across enterprises and the means used among collaborators to remain a source of strategic advantage. The study explores processes including merges and acquisitions as the source of strategic advantage to mobilize static resources and strengthen market positioning.

## 1.2 Background of the research

The phrase Mergers and Acquisitions or M&A refers to an aspect of corporate finance strategy dealing with the integration and purchase of other companies and allied assets. Mergers are generally amiable where executives from the respective companies are contractually required to provide due diligence, yet acquisitions can also arise through a hostile takeover by purchasing the majority of outstanding shares of a company in the open market. While mergers often fail to add significantly to the value of the acquiring firm's shares, the intention of a corporate merger is often aimed at eliminating market competition, cutting expenditure (for example, laying off employees, reducing taxes), managerial redeployment, "empire building" by the acquiring managers, or other plans which may not be consistent with public policy or public welfare. Motives that are considered to add shareholder value include:

- Economies of scale, which means the combined company may have the opportunity to condense duplicate operations to reduce costs relative to the same revenue stream, thus increasing profits.
- Increased Market-Share revenue—assuming that the company will be absorbing a major competitor—which will also boost its position in capturing increased market share, to set prices.
- Synergy—provided internal power positions have been consolidated, revised plans implemented to make better use of complementary resources, and external relationships with other companies restored.
- Geographical or other diversification is designed to smooth the revenue results of a company and over the long-term gives conservative investors more confidence in investing in the company.

Mergers and acquisitions, by their very nature can also provide companies access to new capabilities, technologies and products, immediate entry into new markets at cost-effective operating margins through consolidation of available synergies and attainment of scale economies. A new company name—often combining the names of the original companies—is in some cases beneficial for brand marketing. Research studies conducted by Best Practices, a research company, in 2002 have shown that in most mergers and acquisitions, the target company's shareholders benefit more from deal outcomes rather than the acquiring company's shareholders in the short term. (Best Practice, 2002) Albeit, the fundamental success of a merger is measured by the value of the acquiring firm; practical aspects of mergers often prevent expected benefits from being fully realized and the anticipated synergy may fall short of expectations.

The exceptional performance of companies that embark on growth strategies through acquisitions is a clear indication of the income-generating potential to augment shareholders' value. To put together a case study of Sage plc, a world-leading supplier of accounting and business management software to small and medium sized businesses, it is first necessary to evaluate both the

economic and statistical data and to have in mind a working hypothesis of how shareholders' value is created and measured through acquisitions. The focus is on understanding and analyzing the reasons why companies like Sage plc embark on growth strategies through acquisitions and determining whether they are, through economies of scale and capturing increased market-share revenue, continually growing or diminishing shareholders' value? While acquisitions, with proper planning, targeting and integration can provide growth and increased shareholders' value, market participants need to understand the creation of shareholder value is paramount. According to Copeland, Koller & Murrin, (2000,) the world's most competitive management teams are responding to the pressure to create value by embracing new metrics and new models for managing their companies To ensure that value is indeed created a cohesive understanding of situations and events, as well as processes and certain phenomenon or influences have to be adopted.

Traditionally a variety of processes are used to identify how much value is created within a company. Some gauges include earnings per share, return on investments, return on equity and EVA (economic value added). An assortment of consulting and management firms has devised customized methodologies for shareholder value-creation findings. Whatever projective techniques are used the method must be appropriate to measure a variety of variables and take into account all possible factors to ensure that shareholder value is accurately verified. Certain traditional measurements fall short in that that they do not take all relevant factors into account.

In Harvard Business Review (1996), Anslinger & Copeland state that Thermo Electron Corporation, Sara Lee Corporation and Dubilier & Rice have grown dramatically and captured sustainable returns of 18% and 35% per year by making non-synergistic acquisitions.

-We compared the LBO (leveraged buy-out) firms' practices with those of successful diversified corporate acquirers and were surprised to find that their operating principles were remarkably similar ... Financial buyers rely on market timing to buy assets at a low price (turning around and selling them at a high price) ... we found

that financial buyers actually pay substantial premiums above market price, just as other acquirers do... Many LBO firms start out with fairly high debt loads; they reduce their burden to relatively conventional levels (65% debt to total assets) within one to three years. (Internet Ref 8)

Senior management in many large firms, separated from day-to-day operating decisions, believe the only way to significantly enhance economic efficiency is to make a major acquisition. Firms with superior technology, like Sage Plc, can purchase companies with ongoing manufacturing, sales and servicing organizations. Adapting the enhanced technology to existing products will not only result in a significant jump in sales but also secure a more prominent position in the corporate arena. Other prospects for acquisition by firms with marketing experience and large cash reserves include poorly managed firms and those with superior technology but lacking in financing or inadequate sales distribution resources.

Sage plc employs about 10,000 people in 17 countries, serving 4.7 million customers, and advises 1.3 million customers through support contracts. Its global network comprises 23,000 reseller partners and 40,000 accountants. Key financial information for the year ended September 2005 shows a turnover increase of 14% to £776.6m; a pre-tax profit increase of 13% to £205.4m; an earnings-per-share increase of 13% to 11.18p; and an organic revenue growth of 6% with growth in all regions and in both software licences and services. (Internet Ref 9)

“We provide software and services that are relevant, practical and useful for the demands of today’s small and medium sized businesses... Our devolved organization strategy is based on nurturing the entrepreneurship, innovation and team spirit of our people, allowing us to leverage the power of local expertise... In emerging markets such as Africa and Asia, growth is being driven by small businesses computerizing their business processes for the first time. Our model of expanding by acquiring a leading local player in accounting or payroll software allows us to choose the ideal time to enter these markets and ensures that Sage solutions meet the unique needs of these local businesses.” (Internet Ref 9)

As mentioned previously shareholder value can be increased through acquisitions. Sage Plc has been investing in acquisitions for cash and has spent almost £1, 22 billion over the period 1991 to 2003 purchasing other companies and allied assets. As at date of this research a further £178, 70 million is being invested on acquisitions in South Africa, the United States of America and Spain. According to the Sage Group plc Non-executive Chairman, Michael Jackson, its key to growth and increasing returns in the software industry is through acquisitions. -Acquisitions have allowed the company to expand its customer base, increase product range and target new geographical territories; this new markets and customer base has allowed us to cross-sell and up-sell our existing product range”, he says. Sage believes that acquisitions provide a solid foundation to grow organically in the future once the acquisitions strategy has reached its limitations to growth. (Internet Ref 9)

### 1.3 Value of the research

A breakdown of the impact of acquisitions on shareholders value can assist managers and market analysts to efficiently steer this process to the benefit of their company. Similarly, motives that may impact negatively on shareholder value include

- Diversification: While this practice may hedge a company against a downturn in an individual industry it fails to deliver value. By diversifying their portfolios individual shareholders can achieve the same hedge but at a much lower cost than those associated with a merger.
- Overextension refers to the gap between goals and resources that can lead to excessive bureaucracy and rivalries between formerly independent operations to make the organization unmanageable.
- Manager's hubris: On occasion management of a company will be subjective in buying an acquisition to advance company profile which

will have a neutral or negative effect, rather than maximize shareholder wealth.

- Empire Building is normally seen as damaging for a corporation if manager's become overly concerned with acquiring greater resource control rather than optimally allocating resources.
- Manager's Compensation, which might motivate a perverse incentive to buy companies to augment compensation to certain executive management teams based on the bottom-line profitability of the company, instead of the increasing profit-per-share value benefiting shareholders.
- Bootstrap Acquisition is not considered conducive to growing shareholder value because the purchase price is typically paid over a period of years and is dependent on the unpredictability of the future success of the business.

A key element of the study was to identify the most appropriate measurement for shareholders value creation. This value based management measure can be used to drive profitability and growth within an organisation. Furthermore management could be rewarded on performance calculated by the value-based management measure.

#### 1.4 Problem statement

Corporate acquisitions have become one of the crucial strategic issues for expansion or restructuring, with the aim of creating shareholders' value; yet companies frequently experience deteriorated post-acquisition performance that results in diminished shareholders' wealth. While substantial research material exists on the subject of corporate acquisitions, academic empirical investigations have not produced critical and tangible evidence for what constitutes a successful acquisition. The research problem investigated through this dissertation was to identify the underlying key success factors implemented by Sage plc during an all-inclusive process of acquisition that

achieves profitable post-acquisition performance and shareholders' value. This was achieved by analyzing two dimensions that co-exist within the management of acquisition process strategies, namely pre-acquisition management and post-acquisition integration. Factors affecting the anticipated benefits between the acquiring firm and the target through acquisition were investigated parallel to the acquisition intent of the acquirer. In the area of post-acquisition integration, the determinants of a successful integration of the combined firm that leads to realized, anticipated acquisition gains was identified. Since the key goal of acquisition is to create value for the acquiring firm and then maximizing shareholders' wealth, a post-acquisition performance evaluation criterion was carried out to establish whether the creation of shareholders' value was achieved in the combined firm.

### 1.5 Objectives of the study

The objective of this study was to identify and measure the value created by the strategic acquisitions made by Sage Plc over the period 1998 to 2003. The company adopts a strategy for growth through acquisitions rather than organic growth to achieve its long-term growth objectives. The study also aims to examine in general the systematic program and different methods used in the measurement of shareholder value creation and to select the most appropriate measure. The objectives of the study comprise

- Definition of acquisition criteria
- Identification and ranking of potential candidates
- Screening of potential targets
- Selection of best candidates
- Research and analysis on best candidates
- Valuation, including optimizing of transaction structure
- Single Candidate Negotiations
- Due diligence support

## 1.6 Research Issues

According to Rappaport (1998), when managers consider alternative strategies, those expected to develop the greatest sustainable competitive advantage will be the ones that will also create the greatest value for shareholders.

Companies can make use of many diverse areas to improve profitability in order to maximize shareholders value. These could include change in operations and financial structure; improvement in profitability could also come from growth. This can be achieved either organically or through acquisitions. The research issues arise from the aspect of value creation, through growth. The focus of this case study, namely the multinational software company, Sage plc, has embarked on a dynamic acquisition program over the years to create growth and improve shareholders' value. The research undertakes to evaluate the acquisition strategy used by Sage plc to create value for its shareholders.

Dalborg (1999) states that "Percy Barnevik's statement, what gets measured gets done" underlines the importance of measurement in value creation." (Internet Ref 10) The idea of measuring value creation is not new. Most attempts to measure value creation have been based on numbers derived from historical performance. According to Rappaport (1998) research has shown that many traditional accounting measures used, have shortcomings. They have a fairly low correlation with shareholders' value, for example: return on equity and return on capital employed. Dalborg (1999), stated that the low correlation of return on equity can be partly explained by the distortions introduced by the non-cash nature of these measures, for example, the use of historical asset values and the effects of deferrals.

Based on the above, one of the research issues undertaken is to determine how we measure shareholders value creation. This will be answered in general as background to the research issues and will cover the different

valuation methods used to measure shareholder value creation. The advantages and shortcomings of these measures will be identified.

Sage plc is using Economic Value Added (EVA) as a financial performance method to calculate the company's true economic profit, which also serves as a valuation method to measure value creation. The study will analyse and compare this method used by Sage plc, to other available methods and assess its validity. Usage of the EVA method includes

- Setting organizational goals
- Performance measurement
- Determining bonuses
- Communication with shareholders and investors
- Motivation of managers
- Capital budgeting
- Analyzing equity securities

(Internet Ref 11)

## 1.6 Scope and limitations of the study

In this study, the research issue will be looked at from the company's perspective, since it is the company that is putting in place the acquisition strategy. The researcher is of the opinion that the problem statement will be best answered from this point of view. As this is a case study on Sage plc, the research was restricted to proprietary information about Sage plc. Since information was gathered from management relating to the finance strategy of the company, it was expected that certain proprietary or otherwise sensitive information and materials be reserved from public distribution. The contents of the case study were gleaned from answers provided in response to the questionnaire (see appendix 1) and to information available on the company's website and annual reports, and data on the Internet.

The limitations experienced in gathering data for the case study comprise

- Reviewers are asked to keep confidential the content of proprietary information provided via the Questionnaire
- The researcher is a student undertaking the study to demonstrate the practical application of the research theory studied during the course of the MBA.

## 1.7 Conclusion

The overall objective of this case study was to determine the impact of acquisitions on corporate growth and shareholders' value at Sage Plc. The case study has shown that the acquisitions made by the company over the designated period, have significantly increased shareholder value. The study also identified the company's Economic Value Added (EVA) financial performance method as the most appropriate to measure shareholder value creation. Within this context, it was revealed that Sage plc perpetuated a dynamic capability-building process model through its global acquisitions strategy thus continually reshaping the very nature of the firm and relationships across firms, leading to the natural extension of an open-innovation business landscape.

## 2. CHAPTER TWO: Literature Review

### 2.1 Introduction

The literature review is divided into three sections. The first section discusses general information dealing with the concepts, theories and perspectives on shareholder value creation. This is followed by a discussion about methods used to measure shareholder value. Finally section three focuses on mergers and acquisitions and the impact on shareholder value creation. All calculations relating to the formulae and calculation of value added measures are detailed in the Appendix.

### 2.2 Shareholder Value Creation

#### 2.2.1 Introduction to Shareholder Value

According to Black and Gilson (1998), the origins of shareholder value creation can be dated to the middle 1950's. The work undertaken by some economists in this field was honoured with the Nobel Prize for Economics. Shareholder value started to take on a life of its own, the result of work done on what become known as the Capital Asset Pricing Model (CAPM). The CAPM argues that the returns, both received and expected by investors, are related to the risk incurred by owning particular financial assets. The higher the risk, the greater the return should be.

–The main insight of the CAPM model is that there is a risk weighted discount factor which allows one to assess the value today incorporating tomorrow's developments, profits and cash flows. Not only is the discount rate delivered from the observation of the capital market but it also defines what the opportunity cost of the equity to an investor in the market is. It also states what the company has to earn in order to justify the use of capital resources within the business. –(Black and Gilson 1998: p189).

According to Black and Gilson (1998) during the late 1970s and 1980s the work in applying some insight into the Capital Asset Pricing Model began within the corporate sector. Shareholder value was accredited with

considerable appraisal following a publication by Rappaport in 1986 entitled “Creating Shareholder Value”. Companies started considering the commitment to shareholder value. This implied change in the management process and operations. The executives redirected their focus towards creating shareholder value.

Interest in shareholders received a further appraisal with the 1990 publication of “Valuation” by Tom Copeland and other publications from the Mc Kinsey Group. The publication explains that the application of the shareholder value principal to a company is feasible and highly desirable as it yields substantial benefits, not only to shareholders, but also to other stakeholders.

## 2.2.2 Shareholder Value Defined

### **Value**

The analysis of the term “value” is more an art than science. Value has a variety of meanings and different people may have very different views on the perceived value of a company at any given point in time. They may even disagree on the current valuation or anticipated value. Even though the historical value appears to be objective, the present and future valuations become non-observable because of different value judgments. However, value can be quantified on the basis of a number of factors. Quality of information, perception control, time horizon, uncertainty and tolerance for risk are all factors which create the individual’s perspective on the value of a particular company at any given time.

What investors expect to happen to the company’s cash flow is the largest determinant of value. Value is a subjective statement of beliefs about the future and represents a perception about the company’s prospects (Knight, 1998). According to Black and Gilson (1998) value has existed as a concept as long as humanity has conducted trade and accumulated capital and wealth. It has been the consistent measurement used by those with freedom of choice to trade, invest and preserve capital.

### ***Shareholder value defined***

—The total economic value of an entity such as a company or a business unit is the sum of the value of its debt and its equity. This value of the business is named *the corporate value* while the value of the equity portion is named the *shareholder value*” (Rappaport, 1998:p186).

In the form of an equation:

$$\text{Corporate value} = \text{Debt} + \text{Shareholder value}$$

This formula can be rearranged to compute shareholder value.

$$\text{Shareholder value} = \text{corporate value} - \text{debt}$$

In this formula the debt portion stands for the market value of debt, unfounded pension liabilities and the market value of other claims such as preferred stock. The corporate value is the value of the total firm or business unit. According to Rappaport (1998) it includes the following three components:

- The present value of cash flow from operations during the forecast period;
- Residual value’, which represents the value of the business attributable to the period beyond the forecast period; and
- The current value of marketable securities and other investments which can be converted to cash and are not essential to operating the business.

According to Black and Gilson (1998) shareholder value is defined as being the difference between the corporate value and debt whereby the corporate value is the sum of the future or free cash flows discounted at the weighted average cost of capital (WACC). The free cash flows consist of individual cash

flows for each year of the growth duration. Cash flow is named free as it could be distributed to shareholders at given point in time.

–Shareholder value is another term for the total value of equity of a firm or its ‘market capitalisation’. The market capitalisation of a publicly traded firm is highly transparent and it is the number of shares listed on the market multiplied by the average price per share.” (Black and Gilson 1998:p296)

The basic consensus amongst various authors on the definition of shareholders’ value was the sum of discounted value of all free cash flows from the company to the owner, including what is distributed when the company is sold or dissolved.

### 2.2.3 Other Stakeholders

In the shareholder value management model the primary goal of the company is to maximize value for the shareholder. This model does not take into account other stakeholders of the companies. According to Rappaport (1998), the stakeholder model in which the ultimate goal of the company is to satisfy all stakeholders. Many researchers who studied the shareholder value model have confirmed that other stakeholders are included in the shareholder value model.

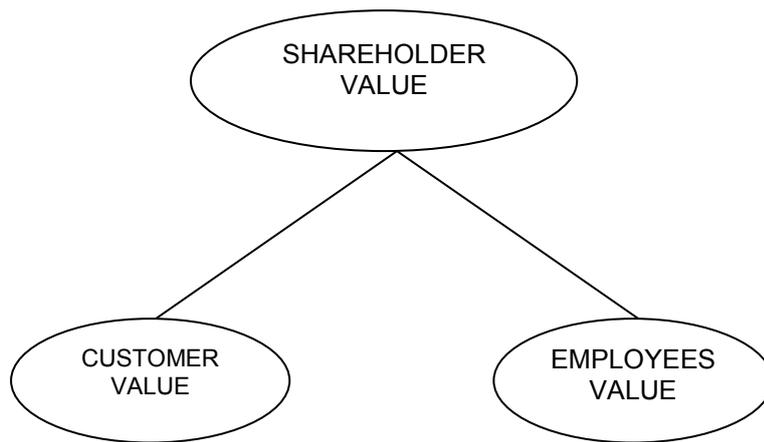
A growing number of domestic and global companies demonstrated that shareholder value orientation builds more attractive companies not only for investors, but also for employees, customers, and other stakeholders. There are powerful market incentives that lead value-maximizing managers to make decisions consistent with desirable social outcomes like work place safety. Rappaport (1998) argued that the management governed by shareholder interests would invest in technology, training, or re-engineered workplaces that reduce safety cost. Rappaport (1998) criticized the stockholder model saying that it may be used by the managers to justify the uneconomic diversification of over investing in a declining core business since these moves are likely to be endorsed by constituencies other than shareholders.

He suggested an alternate view to the stakeholder model to recognise shareholder interest. Identify area quoted

A company's long-term goals depend on the financial relationship with each stakeholder who has an interest in the company. To satisfy the financial claims of these stakeholders, management must generate cash flows by operating its business efficiently. As a result of this, the long-term cash flow is the essence of the shareholder value approach. A value creating company benefits not only its shareholders but other stakeholders as well. All stakeholders are vulnerable when management fails to create shareholder value.

Dalborg (1999) discussed this issue further and made it clear that the shareholders are the residual claimants on a company cash flow, since their claim can only be satisfied once all other direct stakeholders have been compensated. According to Dalborg in the company's income statement other stakeholders are paid first before dividends to shareholders are considered. He added that in the long run shareholder oriented management benefits all stakeholders.—(Dalborg, 1999: p89)

Value cannot be created for shareholders unless the interests of employees are met, such as an attractive working environment. Therefore, fulfilling the goal of value creation is the ultimate test of how a company meets the interests of employees, customers and shareholders. Dalborg (1999) argues that creating value for employees, in the form of self fulfilment, remuneration, personal development, etc., are necessary pre-requisitions for the provision of competitive products for customers. To create value for shareholders, value for both the employees and customers must be created. This relationship is demonstrated in the following figure:



*Figure 2.1: The shareholder value triangular model (Dalborg, 1999: p109)*

Dalborg (1999) also stated that while a company managed by shareholders concentrates on its objective, it cannot afford to ignore other stakeholders. The employees would leave if they are under rewarded or mistreated and customers would leave if they are not satisfied. Suppliers have to be kept happy as well.

#### 2.2.4 Value drivers

It is helpful to identify and use value drivers in decision-making and corporate objectives to create for value maximization. According to Knight (1998) value drivers are the operating factors with the greatest influence on the operating and financial results. They incorporate the entire decision making process. Value drivers help make the strategy real at all levels of specificity that is meaningful and actionable. Value drivers include aspects of the operating decisions and are used to understand non-financial operating measures. Value drivers occur in all parts of the company Value drivers are in fact at the root of value creation. Rappaport (1998) explained that value audit permits managers to monitor the overall value creation and value drivers' analysis is a very critical step in searching for strategic initiatives with highest value-creation leverage. —Shareholder value analysis helps management to determine the areas of business which need to be managed most; otherwise it

is not easy to set priority. Many factors can influence the value of a business.” (Knight, 1998; p196). Petty and Martin (2000) recognised that if one wants to manage shareholder value, the first and foremost thing to do is to identify just what drives shareholder value in the capital market. —A key issue which frequently arises in this regard involves whether the share value reflects a firm's quarterly earnings or encompasses the future cash flow generating potential for the firm.” (Knight, 1998: p184).

Dalborg (1999) identified three fundamental drivers of value creation; these are profitability, growth, and free cash flow. —Normally the value of a company is determined by its current profitability, expectation for profit growth and free cash flow. These would be considered as a determinant of value in certain situations.” (Dalborg, 1999: p89)

According to Rappaport (1998) there are seven critical value drivers in determining the value of any business: sales growth, operating profit margin, incremental fixed capital investment, incremental working capital investment, cash tax rate, cost of capital and value growth duration. Rappaport stated that these factors are too vague for operating decisions and there is a need to determine the micro value drivers that influences it. —The manager would need to set micro value drivers at the business unit level. It is seen to be crucial since it presents a variety of advantages. It allows focusing on the activities which maximizes the value and is most easily controlled by management. It helps to eliminate cost in activities that provide marginal or no potential for creating value.” (Rappaport, 1998: p106)

### 2.2.5 Value Creation

According to Copeland, Koller and Murrin (2000) value is created in the real market by earning a return on the investment greater than the opportunity cost of capital. Thus, the more you invest at a return above the cost of capital, the more value you create. That means the growth creates more value, as long as the return on the capital exceeds the cost of capital. One should select the strategies that maximize the present value of expected cash flows or

economic profits. The returns that shareholders earn depend primarily on changes in the expectations more than actual performance of the company.

Dalborg (1999) pointed out that value is created when the returns to shareholder, in dividend and share-price increases, exceed the risk adjusted rate of return required in the stock market (the cost of equity). This would imply that the total shareholder return must be higher than the cost of equity to truly create value.

Hogan (1999: p209) stated that ~~in~~ a competitive environment, shareholder value is created when a company invests in projects that earn a return in excess of the cost of capital.”

#### 2.2.6 Understanding shareholder value creation

Shareholder value creation is seen as vital in many organisations. Before describing the different ways to create shareholder value, it is important to understand the following basic facts about shareholder value creation. According to Knight (1998) higher profitability does not guarantee value creation for shareholders in a company. Knight identified three rules for creating value:

- The level of profitability has nothing to do with value creation. When it comes to creating value for shareholders, companies that are very profitable have no advantage over companies that are less profitable;
- All management teams start on a level playing field for creating value; and
- Different companies face different challenges in creating value.

Companies are handicapped based on the results to date. According to Clarke (2000) a company adhering to shareholder value principles concentrates on cash flow rather than profits. Petty and Martin (2000) stated

that value creation involves much more than merely monitoring firm performance.

–Value is created where managers are actively engaged in the process of identifying good investment opportunities and capturing their value potential. Value creation requires management to be effective at identifying and harvesting investment opportunities. In addition to this, a capital market focused measurement and reward system that ties employee level performance to owners' rewards will promote the establishment of a continued cycle of value creation which is beneficial to all.” (Petty and Martin, 2000: p135)

To be able to develop an effective strategy for increasing shareholder value, there is a need to first understand the factors that determine shareholder value and then assess by what means managers may create an environment where increased shareholder value is made possible. Creating shareholder value in the future is becoming increasingly more difficult since investors will price stock according to the value created. By increasing the stock price, investors are giving managers credits for performance to date, but they are also increasing the degree of difficulty in creating future value.

Even though operating returns may have improved and investors given credit by increasing the value of the company, there will always be the question of what action will be taken to create more value in the future. Companies face challenges in creating shareholder value such as competing within an increasingly complex economic climate, evaluating investment decisions that pose greater uncertainty and risk, time compression as well as conflicting priorities. Managers are increasingly under pressure to simplify the complex practices, to reduce uncertainty and risk. The objective is to facilitate prompt and assertive decision making, which will help to avoid the occurrence of conflicting priorities and promote balance in collaborative management. Companies have been trying to apply these considerable challenges through different ways such as analyzing the business strategy in performance measures, compensating management for value creating performance and providing motivational stimuli to help managers focus on aspects to develop the business strategy.

## 2.2.7 How to create shareholder value?

Different ways are identified in which companies create shareholder value.

Dalborg (1999) identified four cornerstones in creating value for shareholders:

- Excellence in operations;
- Getting the financial structure right;
- Being focused; and
- Credible earning growth.

Dalborg (1999) believed that in order to be successful in creating shareholder value, the company needs to be well positioned in the four areas above.

### ***Excellence in operations***

Dalborg (1999) stated that in order to achieve excellence in operations, the current business should produce maximum sustainable profitable growth from the current asset base. Operating efficiency presents a great importance for value creation since it contributes to the overall profitability. Operating efficiency can be considered a pre-requisite and for growth.

–A key to achieving excellence in operations is to follow a path that promotes current and future revenue generation capabilities while simultaneously enhancing cost efficiency. This can be a difficult balancing act to follow since cost cutting is never ending as new technologies demand continuous improvement. The culture of change must be introduced as a norm rather than an exception. Excellence in operation is closely related to profitability, since profitability is maximized within the scope of a given product area and geographical market” (Dalborg, 1999: p118).

### ***Getting the financial structure right***

Dalborg (1999) based the discussion of getting the financial structure right on the cost of equity. It is seen as important because it is used as a discount

factor in the calculation of value. A company's cost of equity is equal to the expected rate of return that investors require to purchase the company's stock. Although the cost of equity is not discernible from the market data, the information is needed to manage risk capital in the interest of shareholders.

Under the assumption that markets are efficient, a company which aims at maximizing shareholder value should pursue investments that are in line with the company's strategy. They should have a risk adjusted rate of return that exceeds the cost of equity. The company needs to know its cost of equity in order to make the right investment decision. The cost of equity varies with a company's risk level and debt structure. The risk level of a company needs to be carefully chosen since it is an important determinant of the cost of equity. Managing the level of risk capital is also important because companies can develop problems when the equity is too low. The solvency ratio must be kept appropriately high in relation to both the risk in operations and expansion plans for the near future.

According to Dalborg (1999) a company should keep the structure of equity as simple as possible in order to provide maximum value for shareholders. The structure of equity capital should not, in a company that maximizes value, be used as an obstacle to a takeover. A high share price should provide such an obstacle when needed. He also added that getting the financial structure right is closely related to free cash flow since it deals with issues of capital, risk, and dividends. It is important point to manage the company's capital in the interest of shareholders.

### ***Being focused***

Dalborg (1999) stated that focus has become one of the building blocks in valuing shares since investors are becoming increasingly aware that all customers are in need of different products which cannot be met by one company. In order to maximize value, companies need to be focused. They need to have a clear strategy on where to concentrate their efforts. This must be effectively communicated to the companies' staff so adequate mechanisms

can be subsequently achieved. Companies can enter areas where they have competitive advantage and downsize, divest, or close operations that do not have the potential to create value. This has to start at the group strategic level and it must be understood and accepted by the successive layers of the hierarchy. Being focussed is linked most closely to profitability. One needs to focus on the areas of profitability in order to effectively manage a company. Failure to do so would result in deteriorating profitability.

### ***Credible earning growth***

Since growth adds new assets that provide for future profits, a company's growth prospectus is paramount in creating shareholder value. Innovations that provide new rather than improved products are one of the reasons why companies achieve spectacular results in creating shareholder value.

The market rewards investments for growth when expansion plans look as if they will create value. Except for a few exceptions, businesses with a higher P/E ratio will expand faster. Companies that aim at value creation should direct their resources towards growth areas. Growth can be achieved through mergers and acquisitions or organically, meaning that the growth is generated internally by the company's operations. According to Dalborg (1999) credible earning growth matches the fundamental driver growth since the growth prospect has to involve sustainable profitable growth and not just growth per se.

According to Rappaport (1998) if a company does aspire to a high level of achievement, it must grow. Companies with a near-fanatical focus on the growth outperform all others. Companies with high growth rates are most likely to have high returns to shareholders whilst companies with low growth rates are likely to realize low returns. Not every business could generate value by growing continually. There can be value destroying growth. Therefore, before committing to developing a specific business, it is important for the company to determine whether or not its returns exceed the cost of capital.

Rappaport (1998) stated that shareholder value creation in external growth such as mergers and acquisitions depend not on the pre-merger market valuation of the target company but on the actual acquisition price the acquiring company pays. This is compared with the selling company's cash flow contribution to the combined company. Dalborg (1999) investigated the potential series on growth and shareholder value creation and found out that sustainable revenue and net income growth is the only reliable way to create shareholder value.

### ***Information***

Investors' expectations play a major role in determining the value of a company. The manner in which companies present information or the degree in which information is disclosed can also create value. It is important to tell investors about the strategies being followed and what is actually being done in the company. Directors must ensure that all interested parties are fully informed of any material matter affecting the company's business, with openness and substance. Any material matter' refers to information or activities which affects shareholders' expectations including market prices which are based on those expectations. Failure to properly inform shareholders of any decisions and procedures can be detrimental to the company since investor confidence is difficult to regain.

According to Clarke (2000) giving out information will benefit individual shareholders as well as the company. Clarke (2000) suggested that management should report on why their strategies are expected to lead to the creation of value over the long term and on their own view over actual performance. Knight (1998) stated that information controls value, since value is based on expectations of the future and what investors expect to happen to the company's cash flow. The cash flows are considered the largest determinant of value. Knight (1998) added that information is the single most influential factor in determining value and that information about the past is objective while information about the future is subjective.

## ***Stock repurchases***

Rappaport (1998) pointed out that one of the guiding principals of shareholder value management is to return cash to the shareholders and when the value creating investments are not available, share repurchase becomes a considerable supplement to the dividend in returning cash to shareholders. Companies may repurchase their shares as a signal to the market that their stock is being undervalued since average stock prices respond positively to the announcement of share repurchases. Premium tender-offer share repurchase are most appropriate for reducing significant market undervaluation. Furthermore when the market undervalues company's shares, a share repurchase transfers wealth from the existing shareholder to continuing shareholders. In this case management objectives to maximise long-term value for continuing shareholders, are put in action. The continuing shareholders will thus get a return, which is greater than the required rate of return if the existing shareholders sell at that undervalued price.

A company may carry out a stock repurchase, since it is more tax efficient for distributing cash to shareholders. In most cases, taxes are lower on capital gains than on ordinary income. Companies can repurchase their stock to increase leverage and move towards a more desirable capital structure. Management must make sure that this would be the least costly way of increasing leverage. Rappaport (1998) argued that a share repurchase is a good idea if it is correctly priced.

The basic building blocks of financial strategy are the appropriate mix of debt and equity and the method best used to distribute the cash to the shareholder (dividend or share repurchase). Companies have far more flexibility when they choose to share repurchases because they can carry more debt on their balance sheet.

## 2.2.8 Shareholder value network

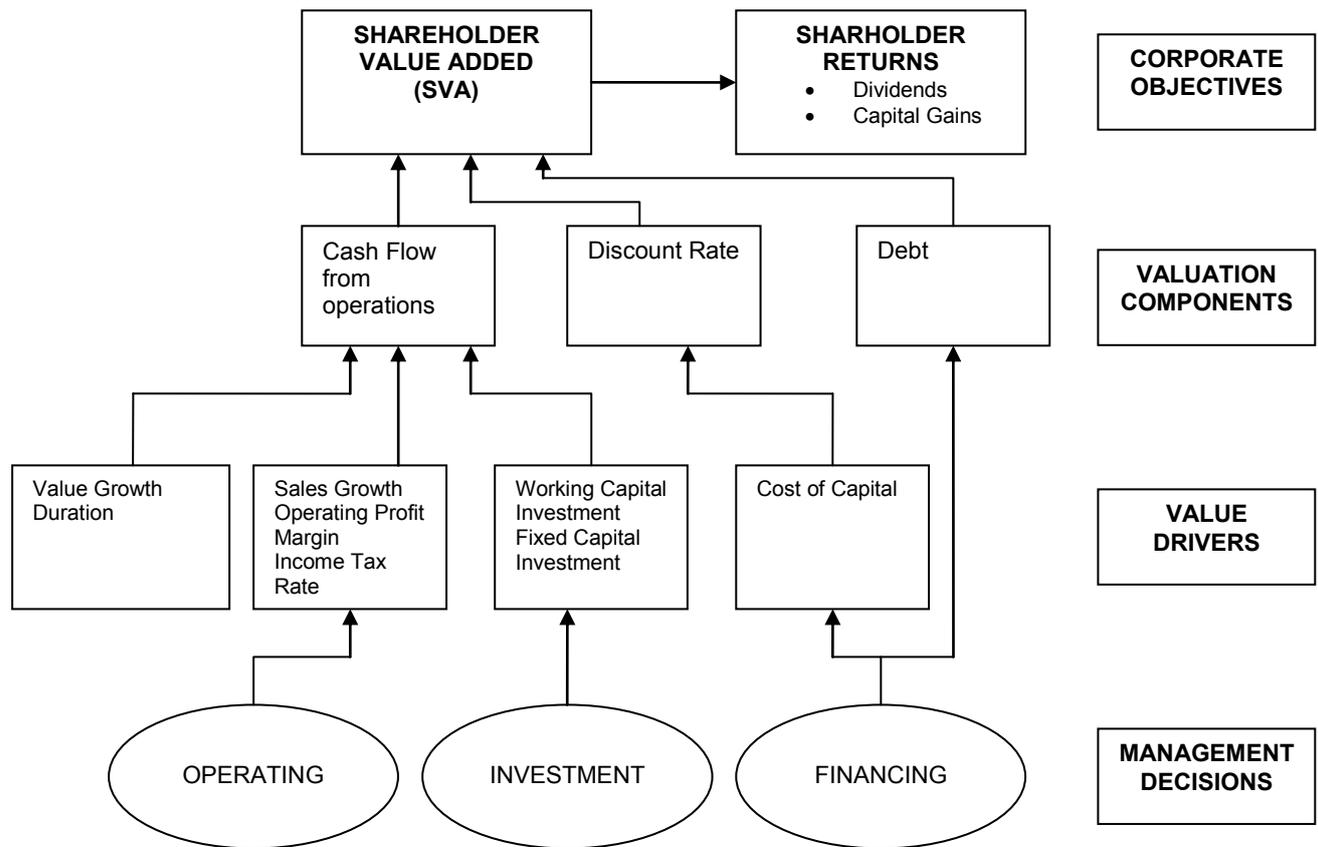


Figure 2.2 : Shareholder value network (Rappaport 1998: p208)

Figure 2.2 on shareholder value network represents the relationship between the corporate objectives of creating shareholder value and the value drivers or basic valuation metrics. The value growth duration, operating and investment value drivers determine the valuation component which is cash flow from operations. The valuation component, being the discount rate, is in turn determined by an estimate of cost of capital. To obtain shareholder value from the valuation component, debt is deducted from the corporate value. Finally shareholder value added serves as a foundation for providing shareholder returns from dividends and capital gains.

## 2.2.9 Value Based Management

According to Knight (1998) value-based management is a way of helping managers focus on the company's strategy to achieve a better alignment and

create value. He goes on to say that managing for value means using the right combination of capital and other resources to generate cash flow from the business. This is an ongoing process of investing and operating decision-making which includes focus on the value creation. In the value-based management the focus on value is introduced into each of the three decision making areas: objectives, alternatives and information. These focal points help improve the quality of the decision and create value. Managing for value means imposing on the existing businesses, the same type of discipline applied to a new project appraisal. Value-based management companies focus on the value oriented decision-making in the four key management processes of planning, budgeting, compensation and management reporting. When all of them are focused on the value they reinforce the value mind-set.

Copeland, Koller and Murrin (2000) stated that Value-Based Management (VBM) is also an integrative process designed to improve strategic and operational decision-making throughout an organization by focusing on the key drivers of the corporate value. Value-based management in the strategic planning process should be conducted in the context of a value creation target set by the centre. Concepts, principles and practices of value based decisions are translated into the language of the business. The overriding role is to make everyone in the company understand how they can create value through their individual actions and decisions. The business managers can develop alternatives, which can be compared to their potential value creation.

Value-based management means operating the company with the objective of creating shareholder wealth and also taking specific actions across the corporation to increase returns to shareholders. The value-based management approach increases the firm's future cash flow net of investment by using measures and tools specifically suited to the challenge. Management processes and systems encourage managers and other employees to behave in a way that maximizes the value of organization. They include the planning, target setting and performance evaluation incentives system, which every company needs in its running business (Copeland Koller and Murrin, 2000, p124).

Choosing the right VBM approach should depend on how the method aligns with management's reason for adopting VBM and not on the superiority of one method over the other. Having a clear understanding at the outset of what you want to accomplish is absolutely essential. Successful VBM programs have certain common attributes:

- Top management support genuine commitment not simply taking involvement;
- Links to compensation;
- Investment of time and money in educating the firm's workforce about how the program works; and
- Simplicity valued over complexity.

It should be clear that not all firms derive the same benefits from implementing VBM.

Launching of a VBM program generally requires transforming the organization at all levels. The most fundamental change will occur at the top. There are many important corporate decisions which must be adopted from the value perspective, such as corporate shape; portfolio planning and resource allocation; mergers and acquisitions; financial policies such as leverage, rights issues and dividends. The role played in setting the framework, processes and measures should encourage the whole company to deliver the value. The method by which such VBM is implemented will be different in each company. Despite these differences, companies need to adopt common measurement processes.

These processes of strategic planning, target setting, annual budgeting and measurements can be employed as direct behaviour in the organization. The purpose of management is to translate the goal of value creation into the practical tools that can refocus and motivate the behaviour within the different businesses. Fundamentals of aligning process decision tools with the value creation are the development of the appropriate set of the internal measures.

Value-based management could be claimed to be evolutionary in terms of its break with past management accounting bases of performance measurement.

There are numerous different VBM techniques, including residual-income type approaches, such as economic profit, economic value added (EVA), shareholder value added (SVA) and cash flow return on investment (CFROI). The key advantage of applying VBM techniques is that it can affect the performance of an organisation. The success of VBM techniques in an organisation is dependent on the behaviour of employees. VBM can be used as a strategic tool and, if accepted throughout the organisation, such a change can be beneficial in terms of providing both a common language and common objectives.

In a well-functioning VBM organization, the management processes, such as planning and performance management, provide decision makers at all levels with the right information and incentives to make value-creating decisions. It operates in all levels of the organization. Line managers and supervisors can have targets and performance strategies that are in line with particular circumstances to the overall business strategy. According to Rappaport (1998) various researchers have concluded that VBM adopters decreased their new investments, increased the dispositions of the assets, increased their payout to the shareholder through the share repurchases and utilized their assets more intensively. All these responses are consistent with the shareholder value-creation because the dispositions of the non-productive assets, returning cash flow to the firm's stockholders (dispensing free cash-flow) through the share repurchase, and the greater use of the existing assets are all ways to increase the SHV

### 2.3 Measurement of Shareholder Value Creation

What is the most appropriate measure of shareholder value creation? There are differences in opinion amongst famous authors and consulting companies on the exact basis for measuring shareholder value. Every author or company defends its own whilst finding fault with the other.

It is possible to divide them into accounting-based measures, such as return on invested capital (ROIC), earnings per share (EPS) and economic-based measures such as economic profit. Some of them are considered to be better than others. According to Copeland Koller and Murrin (2000) the main idea of all these measures is to help the managers to make value created decisions and orient all employees towards value creation

### 2.3.1 Introduction

Which measures are preferable? The McKinsey consultants, Copeland Koller and Murrin state that the economic-based measures are preferable to that of the accounting-based measurements because it is easier to understand the value drivers. (Copeland Koller and Murrin , 2000, p384). The cash flow drives share price performance. One of the most famous authors of shareholder value theory, Rappaport considers that only discounted cash flow (DCF) can give an objective view of the company's performance and shareholder value increase (Rappaport, 1998: p189). Despite the differences in opinion most authors agree with the following statement:

It is possible to talk about the shareholders value creation when, and only when, the company earns the rate of return on new investments higher than the rate investors could expect to earn by investing in the alternative, equally risky securities.”  
Rappaport (1998: p194).

Copeland, Koller and Murrin (2000) developed the following framework for the metrics in order to better understand different aspects of the firm's performance.

<b>Value Drivers →</b>	<b>Financial Indicators →</b>	<b>Intrinsic value →</b>	<b>Share Price Performance</b>
Market share	ROIC	DCF	TRS
Cost per unit	Growth (revenue, EBIT)	Real Option Valuation	MVA
Value of R & D Projects	Economic Profit		

*Figure 2.3: Comprehensive Value metrics Framework (Copeland, Koller and Murrin, 2000: p391)*

Each class of measures can have the following role in the management's performance:

- The company can set targets concerning the terms of market value of the company or total returns to shareholders (TRS);
- It can evaluate different strategies of BU (Business Units) or entire companies in terms of intrinsic value (DCF);
- Intrinsic value can be translated into short and medium term financial targets for operating and strategy value drivers; and
- Performance can be compared with targets, and managers' rewards (compensation and other) can depend on financial measures and value drivers (Copeland, Koller and Murrin, 2000: p391).

### 2.3.2 Old and traditional accounting measures

#### **EPS – Earnings Per Share**

According to Rappaport (1998) earnings fail to reflect the reality of the company's performance because of the following reasons:

- It depends a lot on accounting principles such as various methods of depreciation, pooling interest versus purchase method for mergers and acquisitions;

- It ignores time value of money since it does not take into account that a unit of cash value received today is worth more than a unit to be received tomorrow;
- Investments requirement are excluded since the relationship between the change in economic value and earnings are obscured and investments in working capital are excluded from the earnings calculation. When the business grows, the increase in accounts payable and inventories is inevitable. Another problem is that the earnings (and actually other accounting measures) don't include the opportunity cost of equity; and
- Accounting earnings don't reflect the firm's financial policy, for example, whether it is an unlevered or levered firm.

### ***ROI: Return On Investment***

ROI is one of the most popular measures used by companies in their financial reports as a key measure of success. It remains one of the main measures of divisional performance. The computation of ROI is expressed under the following formulas:

$$\text{ROI} = \text{Net income} / \text{book value of assets}$$

Or

$$\text{ROI} = \text{Net income} + \text{Interest} (1 - \text{tax rate}) / \text{Book value of assets}$$

The increase in ROI is no guarantee of shareholder value creation despite it being one of the most popular measures. It is considered that shareholder value is created if ROI is bigger than weighted average cost of capital (WACC). But as Rappaport mentioned, it is the same as “comparing oranges with apples” (Rappaport, 1998: p209). What problems are encountered with this measure? ROI is an accrual accounting return and cost of capital method and is an economic return demanded by investors. Firstly, ROI is the single

period measurement and it does not consider the events beyond the current period. Secondly, the numerator and denominator are affected by the accounting allocation. Rappaport (1998) compares the ROI with the discounted cash flow return (or economic one-year return on investments):

$$DCF\ return = CF + (PV1 - PV0) / PV\ 0$$

Where PV0 is the present value at the beginning of the year,  
PV1 is the present value at the end the year

While the numerator is the *economic income*, the numerator in ROI indicator is the accounting income. The present value of the cash flow received one year from now excludes the present value of the current year's cash flow which has already been received in the formula of DCF return.

Rappaport (1998) identified several misstatements of ROI as compared with DCF. These are identified as:

- *Length of the project life*: the longer the project life, the greater overstatement since net income includes the capital expenditure, which can be very big; and investment in working capital, where CF excludes this and the time factor is not taken into account;
- *Capitalization policy*: the smaller the fraction of total investment capitalized on the books the greater the overstatement will be;
- *The rate in which the depreciation has been put on the books*. Depreciation rates faster than straight-line methods will result in higher ROI; and
- *The lag between investment outlays and the recoupment of these outlays from cash inflows*. The greater the lag, the greater the overstatement.

It is important to emphasize that capitalization and depreciation policies are strictly accounting policies and do not affect the company's cash flow and economic rate of return. Research and development expenses, a form of

capital investment, are expensed in the current period; thus the comparing of ROI can be misleading because the exclusion of R&D investments from the ROI-base increases ROI itself. Other additional shortcomings of ROI are that the economic rate of return depends solely on the prospective cash flow, while ROI depends not only on prospective investments and cash flow but also on un-depreciated investments of the post period. Moreover, ROI is criticized as it neglects the residual value of the company or business unit (the residual value is the present value of cash flow which is to be received at the post planning period). The other limitation of ROI is noticed when used for the financial planning and control since it sometimes involves the counter economic effect of changes, in financial policy, on ROI.

### ***ROE – Return On Equity***

$\text{ROE} = \text{Net income} / \text{Book value of shareholders' equity}$
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The ROE is based on shareholders' equity and is more popular at corporate level, whereas ROI is more popular for the measuring of the division's performance. One of the reasons for such a preference is that ROE is a measure of primary concern to investors. Since ROE is similar to ROI, it has all the same disadvantages as ROI. The specialty of ROE is that it is very sensitive to the leverage. ROE will increase as more optimal debt is issued and the value decreases, so the ROE and shareholder value criterion is conflicting. The different accounting practice and operating results can be misleading. If we want to increase ROE, we can do the following: increase the leverage (and decrease the denominator), increase asset turnover, or improve the profit margin. Of course, it is good when the company increases its ROE by improving the operations. This can be achieved by higher turnover or by a larger margin. One of the examples is the stock repurchase, which lowers the equity.

The accounting changes and the stock repurchases decrease the usefulness of other accounting-based metrics, such as dividend yield, price/earnings and

market-to-book value. Market-to-book measures can also be misleading as some company's views can be too optimistic or too pessimistic as a result of shrinkage of book value. Price/earnings ratio is not very reliable because the company's management can manipulate the earnings.

According to Rappaort (1998), another problem of the ROI and ROE is that it is impossible to compare the returns for the knowledge company with that of an Industrial Company. The industrial company invests a lot in the fixed assets, while the knowledge company spends a lot on training, research and information but a small percentage is capitalized. Ehlbar (1998) also criticizes these measures, but he discusses them from the CEO's point of view, particularly, the rationale of connection of the CEO or CFO's bonuses to these indicators.

If the bonus depends on ROI or ROE or ROA (return on net assets), management can take the project, which can destroy value but increase accounting earnings, for example: if the ROA (or ROI) target is 25%, the manager will reject any project that will bring less ROA, even if it returns more than the cost of capital and creates the shareholder value. The head of the division whose target returns are 5% will accept an investment and it does not matter whether it covers the cost of the capital or not. (Ehlbar, 1998: p218).

Bennet Stewart III from Stern Stewart and Company, a management consulting company, wrote about the returns (ROE, ROI, ROA) but divides the disadvantages into two types, accounting and financial distortions.

Accounting distortions deal mostly with the different costing methods (LIFO, FIFO etc) while the financial distortions deal mostly with proportion of debt and equity. If the management's task is the particular ROE, the manager can accept the bad project, which is financed by the debt, and reject the good one if it is financed by the equity.

### 2.3.3 Recently Developed Measures

#### ***TSR - Total Shareholders Return***

These measures were developed and supported by the Boston Consulting Group (BCG). The TSR measure allows the managers to make the appropriate trade-off among profitability, growth and FCF (Free Cash Flow). They are able to measure a unit's contribution to the overall company's capital gain and the dividend yield, of the overall market or to a peer group, to determine if the value was created by the management. The advantages of this measure as identified by the Boston Consulting Group (BCG) are:

- it is a final primary goal of investors;
- it gives early warning signals;
- it is a comprehensive ratio and is difficult to manipulate; and
- it enables competitive comparisons.

This measure is helpful when comparing of the companies' performance of one share versus another; or against the market index or some other peer groups. However, the focus on relative performance insulates managers from the macro-economic factors, which are beyond their control. It creates a high hurdle, since by definition half of companies in a given market will under perform the average. Another disadvantage noticed by Monneri (1998) is that TSR can be measured only for traded companies and only after the fact. Despite TSR having many merits, it also has several disadvantages.

Any performance measure must incorporate a company's share price performance. It has to do more than simply record by how much the stock goes up or down. It should provide how and why management creates value. There are several shortcomings to the TSR. Share prices are driven by many factors other than management performance. During the period of one to three years, over which TSR is usually measured for the purpose of

evaluating performance, much of the movement in a company's share price will be driven by the market as a whole or by the industry it operates in.

If the performance is measured on the basis of TSR alone, managers can be rewarded or penalized for events outside their control. Moreover, the share prices in the short term are driven more by differences between actual performance and market expectations and by changes within these expectations, than by the level of performance per se. Companies that consistently meet the high performance expectations but don't exceed them, have difficulty delivering high TSR. According to Monneri (1998), the market may believe that management is doing an outstanding job, but its approval has already been factored at the share price.

Ehlbar (1998) revealed that TSR assumes that the shareholders will re-invest their dividends but the shareholders in any company cannot re-invest their dividends; only to extent that another group of shareholders sells their shares. For example, we can take two companies, with the same risk factor, the same total return and market capitalization. If one company's total return is higher than the cost of capital and the company pays no dividends, the shareholders will benefit more. Or, vice versa, if the company pays large dividends but its rate of return is lower than its cost of capital, the shareholders will also benefit because in this case, the company destroys less value.

### ***EVA – Economic Value Added***

Economic value added or more commonly known as EVA is a performance measurement concept introduced to the corporate arena in the 1920s by the General Motors Corporation, and then forgotten, until Stern Stewart and Company, a New York based consulting firm, reintroduced it in the 80's as a replacement for the traditional measure of value creation. Stern Stewart now trademarks the approach. EVA® is an acronym for economic value added. It is a measure of corporate performance and differs from most others by including a charge against the profit for the cost of all capital the company employs. The proponents of EVA claim that EVA is the framework for a

complete financial management and incentives compensate system. It can guide every decision a company makes, from the board room to the operation floor.

$$\text{EVA} = \text{NOPAT} - \text{C}\%(\text{TC})$$

NOPAT is net operating profit after taxes

C% is percentage of the cost of Capital

TC is the total capital

According to Ehlbar (1998), the EVA framework provides the “~~no~~ lens through which managers view a corporation”. The capital charge, for example, causes the management to consider the effects that their decisions have on the balance sheet as well as income statement and gives them a basis for weighing a trade-off between the two. What then constitutes the wealth creation game? The TSR seems like the logical answer but total return does not really show whether the one company fares better than another. The reason is that a company’s required rate of return or its cost of the capital, increases with the risk associated with the business.

Why EVA is more preferable? According to Ehlbar (1998), the formula for EVA includes adjustments to eliminate accounting anomalies. The adjustments to NOPAT are necessary to make in order to calculate EVA. The first step of calculating EVA is to decide which adjustments are necessary to make to the GAAP accounts. The various types of adjustments that can be made include: the timing of expense and revenue recognition, inflation, foreign currency translation, inventory valuation, bad debt recognition, intangible assets adjustments, taxes, pensions, post retirement expenses, goodwill and strategic investments. However, the major adjustments which are necessary to make include: research and development, strategic investments, accounting for acquisitions, expense recognition, depreciation, restructuring charges, taxes and balance sheet adjustments. In fact, before a company decides which adjustments to make, it has to consider the following factors. Ehlbar (1998) claimed that at first, it is necessary to see whether an

adjustment is material or if the adjustments are significant to the levels of decision making. Ehlbar (1998) concluded that if an adjustment doesn't alter the decision, it is not worth committing to.

### ***MVA – Market Value Added***

$\text{MVA} = \text{market value} - \text{total capital}$
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According to Weissenrieder (1997) the MVA is the value dictated by the market less total capital. The total capital here is the total assets from the balance sheet, which are adjusted according to the EVA concept. Dobbs and Koller (1998) considered this measure to be complementary to TSR which measures the performance against the expectations of financial markets and changes in these expectations whilst MVA measures the financial markets' view of future performance, relative to the capital invested in the business. This assesses the expectations about the absolute level of the performance. Ehlbar (1998) claimed that the MVA reflect how well management has positioned the company for the long term, since the market value incorporates the present value of expected long-term pay-off. MVA is automatically considered to be risk-adjusted because the market values of a company incorporate investor's judgment about risk as well as performance. It is for this reason MVA can be used for the comparing performance of companies within different industries.

From the point of assessing the performance of the current management, the change in MVA, over the period of one year or five years is more important than the absolute level of MVA. An increase in MVA means that the company's market value grew by more than any additional funds raised or retained from the earnings. On the other hand, a decrease in MVA means that shareholder wealth has been eroded (Ehlbar, 1998: p293).

According to Ehrbar (1998) changes in MVA can be caused by several factors. All stocks tended to rise and fall with the overall market setting. Industries are also affected by incorrect information in the market place.

Another factor driving MVA is the management strategy. The appropriateness of a company's strategy and the manner with which managers execute it, will influence its MVA. It is useful to keep in mind that stock prices are based on expectation since the value of stocks depend on the profit that investors expect companies to produce in the future. Past profits matter only because they are important factors driving expectations about the future performance. According to Ehlbar (1998) the cash that investors expect to receive out of it, defines the value of the project and not what had already gone into it.

A company's market value is the present value of future profits, discounted to the company's current cost of capital. If a company earns exactly the cost of capital, its market value added is supposed to be zero. If expected returns exceed the cost of capital, the company's stocks will be sold at a premium and MVA will be positive. In this case management has created wealth by convincing investors that it will produce profits that exceed the cost of capital. If expected returns are less than the cost of capital, management will destroy the wealth and MVA will be negative.

While the goal of every company should be to create as much MVA as possible, MVA by itself is useless as a guide to day to-day decision-making. Firstly, it is because the change in the overall level of stock market can overwhelm the contribution of the management actions in the short run. Secondly, MVA can be calculated only for publicly traded companies, i.e. for the companies, which have the market price. Thirdly, MVA can be calculated on the consolidated level, not for business unit, division. As a result, managers have to focus only on some internal performance measures that are closely linked to MVA. According to Ehlbar (1998), it is far better to manage the increase on EVA since according to the creators of EVA theory; it is the most correlated with MVA.

Other consultants consider MVA a supplementary measure to the total shareholder return (TRS). Neither MVA nor TRS can be the only measure for the comparison of companies. TRS measures the performance against the market expectations and changes in these expectations. MVA on the other

hand measures the financial market's view of future performance relative to the capital invested in the business and therefore assesses the expectations on the absolute level.

### ***CVA® – Cash Value Added***

Cash value added categorises the net present value calculation and classifies the investment in two categories, namely strategic and non-strategic investments. Strategic Investments are those whose objectives are to create new value for shareholders' example expansions, while non-strategic investments are made to maintain the value created by strategic investments for example investments in new products or new markets followed by several non-strategic investments. A strategic investment can be tangible or non-tangible. According to Weissenrieder (1977) a strategic investment can be defined as a value creating cash outlay.

Strategic investments are the capital base in the CVA® model because the shareholder's financial requirements should be derived from a company's venture, not the material assets. This means that all other investments with the purpose of maintaining the original value of the firm must be considered as —costs. What is CVA®? Cash value added is defined by the difference between operating cash flow (OCF) and operating cash flow demand (OCFD). Operating cash flow comprises of EBIT, working capital movement and strategic investments. Working capital movement here is calculated using the following formula:  $\Delta$  (Receivables – liabilities+ stock + cash). Operating Cash Flow Demand represents the cash flow needed to meet the investor's financial requirements on the company's strategic investments i.e. the capital cost. However, in the CVA model, the capital cost is not a percentage term but a cash item. The OCFD is a real annuity adjusted for actual annual inflation, not average inflation. Simply, OCFD represents the annual cash flow amount, growing by assumed rate of inflation that will yield an IRR (Internal Rate of Return) equal to the WACC on the original investment.

If the managers can evaluate if the historic margins have been sufficient or not, then they can more easily understand whether their plans will bring value; that is whether the planned investments are likely to have a CVA® index >1.

### ***CVA developed by the Boston Consulting group***

The CVA® of FWC AB by no means should be confused with the other CVA of the Boston Consulting Group because they are two absolutely different measures, with different ways of calculation. CVA of the BCG is the cash value added as well but it is the absolute measure of the operating performance contribution to value creation. The CVA measure reflects operating cash flow minus a cost of capital charge against gross operating assets employed.

According to the consultants of BCG this measure (CVA or AVE – added value on equity) is an accurate tool of the determining priority of value drivers and assessing the value drivers' tradeoffs. It is a useful indicator that allows managers to balance the high level tradeoffs between improving profitability versus growing the business. Its measurement is based in cash flow and original cash investment. It avoids the key distortions that can cause measures such as EVA® to give misleading trends to capital intensive business.

### ***DCF - Discounted Cash Flow***

Discounted cash flow (DCF) is believed to be the most accurate tool and at the same time a complex measure. According to McKinsey consultants, DCF approach is a more reliable picture of a company's value than an earnings-multiple approach. There are two competitive approaches concerning the value of the firm:

- In the earnings-multiple approach companies are valued based on a multiple of accounting earnings. In its extreme form the earnings multiple approach, indicates that the only earnings of importance are

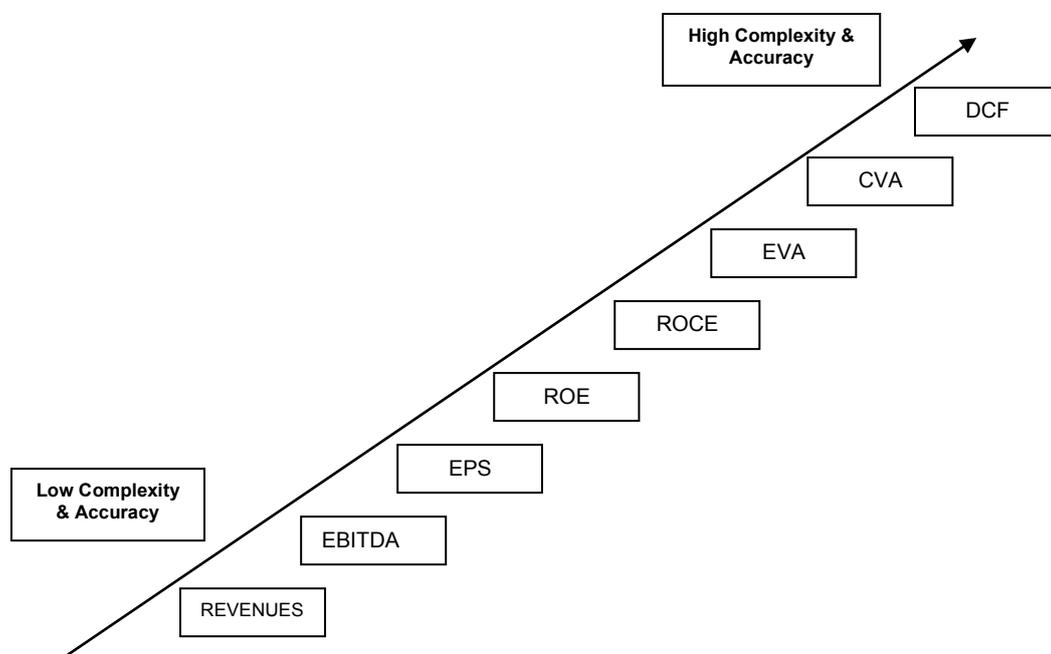
those which will be earned during the course of the current year as well as the next; and

- In the DCF approach the value of business is the expected CF discounted at a rate that reflects the risk of the cash flow (Copeland Koller and Murrin 2000: p458).

Another problem with earnings is that investors cannot use it for investment purposes. Only the cash flow generated by the business can be used for consumption or additional investments.

Another related measure to the DCF is the SVA – shareholder value added Rappaport (1998) defines SVA as the cumulative present value of cash flows plus the present value of liquidation at the end of the forecast period less the current liquidation value.

The classification of the value creation measures in terms of its complexity and accuracy are given as follows:



*Figure 2.4: The complexity and accuracy of the different measures (Rappaport 1998: p208)*

*All metrics are classified following the grade of complexity and at the same time shows the grade of accuracy of the shareholder value measures.*

## **CFROI® – Cash Flow Return On Investments**

The CFROI® model is a registered trademark developed by the Holt Consulting Firm in the United Kingdom and is rooted to the DCF principles where more cash is preferred to less, cash has a time value and the less uncertainty the better it is. All valuation drivers in the CFRI model are calibrated as “real” values.

According to Rappaport (1998) discounting rate component used in the CFROI® model rejects the CAPM and  $\beta$  procedures for estimating the firm's discount rate or the cost of capital on the basis that they are rooted in a backward-looking estimate of a premium for the general equity market over the rate-free market.

In Holt's model, a firm's discount rate is determined by the market rate, plus a company specific rate differential as a function of the market size and leverage. It is possible to say that value is created or that the value creation is positive when  $CFROI > DR$ , negative when  $CFROI < DR$  and zero when  $CFROI = DR$ . DR means Real Discount Rate.

## **Q ratios**

Other methods used for the measurement of value creation are the VROI, Value Return on Investment, and Q ratio, based on the Nobel Prize winning economist James Tobin.

The “pre-strategy” view is simply to capitalize the existing free cash flows, probably for the later available year. This is compared with the post strategy value, which includes the value of cash flow generated over the forecast period. According to Black (1999), the decision rule is straightforward, if VROI is more than one, SHV has been created; if less than one then SHV is destroyed, since the incremental value added is smaller than the incremental value of the resource used.

From the macro-economic point of view, a Q ratio of greater than one means that the market values of the company's assets are more than what they actually cost, while a ratio of less reflects the opposite. A high value of Q means that corporations have a good incentive to invest in new plant or equipment since the market values each unit of investment as more than it is really worth. A low value of Q reduces the incentive to invest but encourages acquisitions via the stock market since investors are paying less for an asset on the financial market than it would cost them to replace it on the goods market.

### ***The comparison of the new measures***

Blair (1997) considers that there is no consensus on what should replace the old measures. EVA's advance has been assisted by its positioning as a tool not only for investors but for companies as well. It's hard to find many city analysts who are not familiar with the EVA idea. CFROI® of the Holt firm is also one which has a London office hawking CFROI analysis to fund managers for 2-3 years.

Blair (1997) added that EVA is definitely the market leader among the new metrics, despite the fact that the companies have not dropped the old apparatus of EPS and pie ratios. They would most likely continue to use it as it is too engrained to be swept away and is considered too useful.

The most important issue is whether the new metrics have anything to teach companies on how to run their business. If so, to what extent should the managers assist analysts in providing the information that will enable EVA, CFROI® and other measures to be calculated? Companies generating new metrics data for analysts and investors are willing to help, but reluctant to publish their own calculations. The group financial director at Sage plc stated that since analysts are looking at EVA, Sage needed to as well. The group financial director stated that in his experience, EVA was always mentioned by analysts.

A similar view is held by a financial director of another company, who considers that analysts and investors are giving more prominence to EVA rather than traditional measures. He said that his company does its own calculations as fast as they understand these new metrics. They are ready to report pro forma CFROI® and EVA if any institution asks, but there is not any sign of it. The appeal of CFROI and other metrics is the focus on cash and it helps managers to obtain a clear picture of a business unit's capital efficiency.

Unlike traditional accounting measures such as ROA, for example, CFROI® looks at the true cash amount invested, taking adjustments for inflation where significant. This helps managers to judge whether a unit's ability to create value can be enhanced through expansion, reduced capital allocation and assorted efforts to boost profitability.

According to Nichols (1998) there is no magic formula that always captures the long-term impact of a business strategy on shareholder wealth. These modern measures, CFROI® and EVA® happen to be one of the most popular tools finance executives are reaching for. It is often difficult to determine whether EVA® is better than CFROI®. There is a trade-off to each approach. CFROI® is very accurate but complex, while EVA® is easy to use but less comprehensive.

While the attractiveness of EVA® comes from the seeming simplicity of its application, the techniques used to calculate it present substantial challenges. Unless the right factors and adjustments are taken into account when applying EVA®, to reflect the unique identity of each company, it becomes difficult to get an accurate picture of value. If a few adjustments are taken into account, the picture can be distorted and when many adjustments are considered, the process risks becoming too complicated to be used. Richard (1994) summarizes the pros and cons of EVA® of Stern Stewart Co., CFROI® and TSR of Boston consulting group:

### Boston Consulting Group's CFROI/TSR -- Advantages and shortcomings.

- Data required by SEC for proxy reporting and used by investors;
- No biases regarding new and old businesses;
- Similar to IRR and NPV metrics used widely to assess incremental project investments;
- It is necessary to consider that market sentiment also drives actual shareholder returns; and
- Required tailoring to eliminate unnecessary complexities.

### Stern Stewart's EVA/MVA – advantages and shortcomings

- Easy for line managers to grasp;
- Easy for companies to apply and use without ongoing consultant help;
- Packaged neatly with training tools and software for reporting; planning, and compensation plan design;
- MVA ignores dividend and it is not used by investors; and
- Can be biased against low-return start-up investments; can favour business with heavily depreciated assets.

Another problem is that companies and their business units have their own special characteristics, so EVA® may not always be an ideal measure to use. Companies that are particularly sensitive to the availability of capital might choose to use a measure, known as cash value added, on its own or in conjunction with EVA®.

The advantage of the DCF model is that the value components of the business add up to the enterprise value. It is easier to identify and understand the separate investments. It can be applied at different levels, as a company on a whole or to the individual business units. It is consistent with the capital budgeting process.

The problems with the free cash flow (FCF) is that while being a valid measure of the company's value when projected into the future, it is useless

as an indicator of the current performance. Nichols (1998) gives his analysis of the new measures in his work “Unlocking shareholder value”. This book offers insight on how the new measurements can be used to the advantage of the company.

Gunn (2000) created two comprehensive comparison tables for the distinction of each measure; one table for the differentiation of old measures and one for new measures.

#### Comparison of Traditional Valuation Methods

<b>REQUIREMENTS</b>	<b>P/E</b>	<b>EV/EBITDA</b>	<b>ROI</b>
Simple and easy to use	Y	Y	Y
Applicable across borders and industries	N	N	N
Correlated with total shareholders returns	N	N	?
Accounts for risk	N	N	N
Accounts for incremental investments	N	N	?
Incorporates mean reversion	N	N	N
Estimates changes in value	N	N	N

*Table 2.1: Comparison of Traditional Valuation methods ((Gunn 2000 )*

#### Comparison of Three Alternative Valuation Methods

<b>REQUIREMENTS</b>	<b>EVA</b>	<b>SVA</b>	<b>CFROI</b>
Simple and easy to use	N	?	N
Applicable across borders and industries	Y	Y	Y
Correlated with total shareholders returns	Y	?	Y
Accounts for risk	Y	Y	Y
Accounts for incremental investments	N	Y	Y
Incorporates mean reversion	N	Y	Y
Estimates changes in value	N	Y	Y

*Table 2.2: Comparison of Three Alternative Valuation methods (Gunn 2000, )*

N No

Y Yes

? Unknown if this measures satisfies the criteria or not

According to Gunn's opinion, SVA and CFROI have their own problems, despite the fact that CFROI is best for the share price forecasting and SVA is the best model of the incremental business value. The problem with the SVA is that it uses the CAPM model and users must tailor the model to each company. It can be useful for the corporate forecasting, but not for investing. Gunn (2000) added that the problems with CFROI are the following: firstly, the market specific discount rate doesn't make allowance for industry factors or for the global companies to which this discount rate should be applied. This model doesn't work well in some industries; for example, in property, leasing and exploration where estimating the project life is often difficult.

As indicated above, all the measures have some or other advantage over the other EVA attempts to overcome some of the problems of the other measures outlined above. According to Arnold (2002), Stern, Stewart and Company had put a great deal of effort into the marketing of this measure and was probably the most widely talked about value metric. The adjustments to profit and capital figures are meant to refine the basic EP. Appendix 3 gives a detailed analysis and calculation on EVA.

Arnold (2002) argues that EVA, like the generic EP, has the virtue of being based on familiar accounting concepts and is arguably more accurate than taking ordinary accounting figures and measurements. Despite what some critics has said that EVA has been time consuming and costly in calculating, it remains as one of the more widely used modern value metrics.

## 2.4 Mergers and Acquisitions ( M & A )

### 2.4.1 Introduction

Many industries are seeing unprecedented corporate consolidations, often in response to customer demands. Banks are moving to gain a broader customer base through size, economies of scale and additional technologies as they look increasingly towards increasingly expanding global markets.

Auto parts makers are joining forces to consolidate positions with car manufacturers and capital equipment producers that are narrowing their own lists of acceptable vendors. Hardware, consumer products, and stationery firms are merging so they can better supply discount and wholesale stores with the volume to support the low prices their customers demand. Retailers are answering the challenge of price increases and competition by uniting to achieve scale, share and geographic territories. Pharmaceutical firms are seeking mergers to become bigger, pool their R&D resources and meet requirements for more drugs while medical and surgical equipment companies engage in a flurry of mergers and acquisitions to achieve better positioning to serve a customer base that is shrinking because the hospital industry is going through its own consolidation.

There is no one technique for growth and diversification that is universally applicable. Many contrasting philosophies are contradictory and may achieve levels of success due to situation-specific variables. With the accelerated pace of today's business, the increase in government vigilance and conditions moving and changing faster than they can be sorted out, fixed standards and procedures are not only difficult to come by, but may also be counterproductive in dynamic markets and economies.

Corporate planning for growth falls into two primary forms:

- internal growth via product improvement, line extension and research and development; and
- External growth that is achieved through product acquisitions and corporate acquisitions and mergers.

The basic aim of making acquisitions is the same for any other investment associated with a company's overall growth strategy that is to add value. While mergers and acquisitions involve a more complex set of considerations than other kinds of asset purchases, the economic substance of these transactions is the same. In each case, a current price is paid in anticipation of a stream of future cash flows

#### 2.4.2 Why Mergers and Acquisitions?

A merger is one means for a company to grow and is a technique of fulfilling part of a long- buyer company. The most obvious benefit of an acquisition is the saving of time. The buyer can achieve its objectives to grow a company almost immediately with a merger as opposed to implementing organic strategies which might take years. The buyer's motivations are primarily those of growth and improvement of the additional manufacturing capacity or obtaining additional sales volume can never be done overnight when relying on internal growth however, it can be accomplished relatively quickly through mergers.

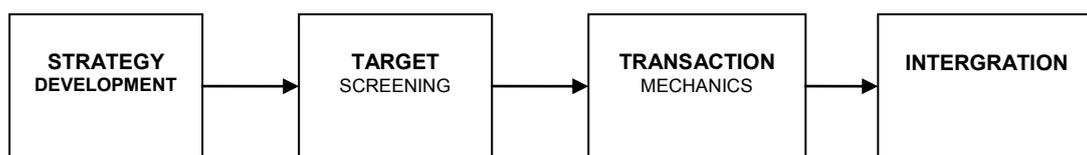
Rappaport (1998) suggested that corporate management is frequently in a dilemma over internal development or acquisition. There are important advantages of acquisitions over internal growth which include but are not limited to entry in a product market and may take weeks or months through acquisition--while internal development may take years; acquiring a business with a strong market position is often less costly than a competitive battle to achieve market entry and positioning; strategic assets such as brand image, proprietary technology, patents, trademarks and experienced management are difficult to develop internally.

The typical objective of a merger is an increase in financial and operational stability. The inclusion of additional product lines or assets means a company will have larger numbers in its balance sheet, its borrowing power will be greater and its vulnerability to market forces will be lessened. A merger may be for purposes of acquiring technology, research and development and distribution capabilities that can help it expand its customer base and improve its effectiveness and efficiency in operations with subsequent real effect on the bottom line.

### 2.4.3 The Mergers and Acquisitions Model

According to an article published by Deloitte & Touche Consulting, an international management consulting company, on their website (Internet Ref 1), successful M&A is a result of focused and thorough strategy development, analytical effort and comprehensive management of the subsequent integration. Acquirers are often doomed well before the price is established. They buy without a clear strategy. They buy with inadequate knowledge of the target company and sometimes no "cultural" due diligence. They buy with no post merger integration plan that would quickly convert synergies from wishful projections to operational realities.

The article further states that a successful merger or acquisition depends on effectively managing the following four steps model



*Figure 2.5: Mergers and Acquisitions Model (Deloitte and Touche Consulting, Internet Ref 1)*

#### **Strategy Development**

All mergers and acquisitions should be subject to an overriding strategy that takes into consideration goals which may include increased market share, the strengthening or complimenting of company skills and core competencies; development of a broader business portfolio; and possible diversification. This strategy is grounded in well-researched facts about both organizations and developed in sufficient detail for competent decision making. The strategy will also include plans regarding effective integration subsequent to the merger. The acquirer uses this strategy to identify planned targets for their 'fit' with the needs of the organization.

## **Target Screening**

Target screening is the process of identifying and evaluating potential acquisition candidates. This is achieved by using the developed strategy to examine each potential target for its ability to create the desired value within the context of the strategy. The ability to quickly and effectively integrate these attributes into the acquirer must also be considered. This may be done in the form of an intensive checklist regarding the acquisition candidate broken down into categories like general, financial, sales, manufacturing, purchasing, research and engineering, and human resources. Points cover every conceivable issue, from the latest financial statements to the early history of each item of the candidate's product line. The list should not be fixed but revised continually as experience grows.

## **Transaction mechanics**

Transaction mechanics includes all the details of valuing, structuring and executing the deal. An important aspect of this step is to identify, quantify and validate the synergies and benefits the deal is anticipated to provide. At this point, the potential synergies are translated into financial forecasts for the value drivers being sales growth, profit margins, incremental fixed and working capital investment, taxes, the cost of capital, and the forecast period or the value growth duration. These results in a thorough review of the strategic, operational and financial expectations, transaction details and sequences culminating into the creation of a transition plan.

## **Integration**

Integration includes all the activities required to smooth the process of transition between two companies into one smooth running operation. Often these steps cross organizational boundaries and the group responsible for setting strategy is often not the same group responsible for its execution. Organizational friction between groups may hamper full achievement of intended results. If focus and cooperation during integration can be maintained, companies stand a greater chance of a successful merger.

#### 2.4.4 M & A and its Value

It is important to emphasize that the acquiring company needs to value not only the target company but itself as well. Two basic questions that must be asked in the course of a financial self-examination are:

1. How much is this company worth? and
2. How would its value be affected by each of several scenarios?

The first question sets the foundation for the ability to assess the benefit of possible courses of action. The three basic steps of competitive analysis as suggested by Rappaport (1998,)--to assess industry attractiveness, to evaluate the business's competitive position within the industry and to identify sources of competitive advantage--are equally relevant for evaluating both the present business as well as acquisition candidates. To estimate the value creating potential of an acquisition to the buying company's shareholders, assessments must be made of the stand alone value of the seller, the value of acquisition benefits, and the purchase price.

The value created by an acquisition is the difference between the post merger value of the combined company and the sum of the stand-alone values of the buyer and seller. The difference equals benefits generated by potential operating, financial, and tax synergies. Alternatively the value created by acquisitions is the difference between the buyer's pre-merger value and post-merger value.

There are times when an acquisition is simply a necessary investment as part of a more global long-term strategy to attain a competitive advantage in a selected product market. The most important consideration is that the overall strategy creates value and supporting projects represent the most efficient and effective means of implementing the strategy. In such a situation an acquisition may not meet conventional discounted cash-flow hurdle rates, but it may be the most practicable, efficient and effective means to execute long-term strategy in a timely manner. In this case, the acquisition is not as much

an end in itself, as its value to provide the option to participate in future and expanding opportunities in the market.

The acquisition price must be no greater than the stand-alone value of the selling company plus the value created by acquisition synergies. These synergies increase the cash flows for the combined company over the expected level of cash flows for the two companies operating separately. According to Rappaport (1998), when the acquiring company shareholders earn just their risk-adjusted rate of return, the following holds true:

$\text{Acquisition price} = \text{Stand alone value of seller} + \text{Value of synergies}$
---

#### 2.4.5 Conclusion

The Literature Review discusses in detail the origins of and advancement in strategies for the creation of shareholder value since the concept was first created by economists close on six decades ago. Yet the concept of value has been in existence as long as humanity has conducted trade and accumulated capital and wealth. Today more than ever corporations are geared to maximizing shareholders' value by focusing on product development, marketing and support services to keep abreast of customers who swiftly outgrow entry-level offerings. As competitive challenges intensify within global markets the pressure to find new effective routes for growth is increased. A growth strategy that has proved highly successful lies in acquisitions provided an effective management strategy is put in place. All mergers and acquisitions need to be properly planned, executed and integrated in order to create value for its shareholders.

The next chapter is a case study on the Sage Group plc, a company that follows through on its promise to add vertical business tools for the mid-market by integrating operations/financial tools to better serve its current customers' growing expectations for automated, technologically-advanced industry-specific tools and services.

### **3. CHAPTER THREE: Case Study on The Sage Group Plc**

#### **3.1 Introduction**

Developing a strategic plan for creating shareholders' value through acquisition is a serious process, demanding a high level of analysis and dynamic creativity in the interpretation of industry-specific data and the development of investment scenarios. While the previous chapter outlined various options to stimulate credible earning growth, including Value-based Management (VBM), Discounted Cash Flow (DCF), Earnings Per Share (EPS) and Return On Investment (ROI), the question that hinges on the case study of the Sage Group plc is whether there is any truth to the common view that organic growth results in better shareholder performance than acquisitive growth? And how does a corporate dealmaker like the Sage Group plc motivate its position as a highly acquisitive company, having completed more than 20 transactions since 2000? Sage's stated strategy is to acquire point solutions in key markets, cross-sell products, up-sell services and support contracts to enhance margins.

The Sage Group plc is a leading provider of accounting and business management software to small and medium-sized enterprises; applications include HR, accounting, CRM and fixed asset management. Headquartered in the United Kingdom, the company has significant operations in Europe, North America, South Africa, India, Singapore and Australia. The company employs about 10,000 people in 17 countries, serving 4.7 million customers, and advises 1.3 million customers through support contracts. Its global network comprises 23,000 reseller partners and 40,000 accountants. Key financial information for the year ended September 2005 shows a turnover increase of 14% to £776.6m; a pre-tax profit increase of 13% to £205.4m; an earnings-per-share increase of 13% to 11.18p; and an organic revenue growth of 6% with growth in all regions and in both software licences and services. (Internet Ref 9)

### 3.2 Background

Founded in the early 1980s, Sage Plc has grown rapidly through acquisitions to become a global player in the business software market). The group was floated on the London Stock Exchange in 1989 and is a listed FTSE 100 company.

Sage is in the business of providing management, business software applications and related products to small and medium sized businesses (SMEs). These include applications for accounting, payroll, human resources, customer relationships management, contact management and e-commerce products. The company's products are backed by support services and training. The Sage Group plc corporate portfolio comprises businesses throughout Europe, North America, South Africa and Australia.

### 3.3 Business strategy

According to Sage plc's website (internet ref 9), their business strategy revolves around five fundamentals to enable them to serve the SME sector, namely:

:

- *Local Solutions in local Markets*

The company fosters a strong belief that small businesses need business management solutions designed to enhance their local business environment, therefore around the Group local management deliver product development, marketing and support services to customers within distinct geographic areas;

- *Industry Specific Solutions*

Sage plc recognise that some customers require industry-specific solutions where business needs may be more specialised. Their current vertical offerings cover the following industrial sectors:

Manufacturing, Construction, Real Estate, Distribution, Accountancy and Non-Profit charities such as schools and hospitals;

- *Supporting Customers*

Products, whether horizontal or vertical in nature require local support provision and over one million customers worldwide receive support from Sage. In the Sage context support also covers the provision of advice on, for example, the likely impact of specific legislation or help and assistance in carrying out certain procedures or processes correctly, plus more general technical product support;

- *Meeting Customer Needs*

Sage Plc recognize that businesses continually change and develop over time. Existing customers may upgrade their existing products to benefit from new features or enhancements; alternatively where business processes become more complex entirely new systems may be appropriate. In addition many customers further automate some areas of their business, often linking accounts data in the process, e.g. CRM, HR and Fixed Asset Management. Sage plc offer the depth and range of products to meet the needs of both new and existing customers as their businesses change and grow; and

- *Growing their Customer Base*

Every year Sage attracts many thousands of new customers who need to acquire high-tech business management software as a means of automating their business processes. Supported by over 40,000 accountants and 22,000 business partners worldwide Sage offers a complete range of products for these businesses.

### 3.4 Growth

Sage plc has embarked on a growth strategy through acquisitions since their listing on the London Stock Exchange in 1989. Management firmly believe

that in order to increase value the company has to grow more swiftly through acquisitions rather than depend solely on organic growth.

According to Mr. Michael Jackson, Group Chief Executive, acquisition activities enabled the company to adjust more efficiently to new challenges and opportunities. He concluded that Sage had over the years carried out acquisitions efficiently and seen increases in revenue, market share, profitability and ultimately company value (internet ref 9)

Mr. Michael Jackson added that Sage targets its acquisitions based on the product range, customer base and geographical representation of the target company. Acquisitions allow Sage to expand its customer base, acquire new products for immediate entry into an existing customer base or opportunities to diversify by expanding into innovative yet uncharted areas. (internet ref 9).

This new target market allows them to cross-sell their existing products or upgrade the new customer to Sage's own product line. Acquisitions provide Sage with a broader base to increase revenues. Sage's management firmly believe that the acquisition program allows them to build a solid customer base and qualified target market that will enable them to grow organically once an acquisition reaches its limitations to develop (internet ref 9)

### 3.5 Geographical Representation

Sage plc is based in Newcastle-upon-Tyne in the United Kingdom. The Company enjoys representations in America, Africa and Australasia.

According to the Annual Report (2004), Sage had captured over 85% of the SME market in the Northern Hemisphere and more recently through their acquisition of Softline and Accpac has a direct representation in South Africa with over 80% of the SME market through their products Pastel and Accpac.

### 3.6 Acquisitions

A brief summary of major acquisitions from 1991 to 2003 is summarised in the table below. All acquisitions were paid for in cash.

YEAR	COMPANY	COUNTRY	VALUE (£ million)	RATIONALE
1991	DacEasy	USA	14.6	New territory
1992	Ciel	France	4.6	New territory
1994	Saari	France	19.6	Mid-market entry
1995	Sybel	France	16.6	Mid-market entry
1997	KHK	Germany	40.7	New territory
1998	State of the Art	USA	163.1	Mid-market entry
1999	Peachtree	USA	190.5	New entry level
1999	Tetra	UK	81.1	Mid-market entry
1999	Sesam	Switzerland	11.3	Mid-market entry
2000	Best	USA	286.4	New product
2001	Interact	USA	190.4	New product
2001	MIP	USA	13.8	New product
2002	CPA Software	USA	9.1	New product
2003	Timberline	USA	63.6	New product
2003	Softline	South Africa	66.0	New territory
2003	Grupo SP	Spain	49.1	New territory

*Table 3.1 Summary of Acquisitions by Sage plc*

*(Information extracted from the Annual Reports of Sage plc for years 1991 to 2003)*

### 3.7 Conclusion

Sage plc is an established player in the financial accounting software industry and continues to grow their market share through acquiring strategic acquisitions.

This chapter has shown that Sage's stated strategy is to acquire point solutions in key markets, cross-sell products, up-sell services and support contracts to enhance margins. It is this stated strategy namely growth through acquisitions that has formed the basis of this case study. The next chapter will undertake to discuss the research methodology adopted to conduct this research.

## **4. CHAPTER FOUR - Research Methodology**

### 4.1 Introduction

Sage plc continues to grow their market share through acquiring strategic acquisitions. The previous chapter has shown that management firmly believe that their acquisition strategy is increasing revenue and returns thereby increasing shareholder value.

This chapter covers the process through which the research was carried out to investigate if value was created through the acquisition strategy at Sage plc. It describes and discusses different methodological issues and the evaluation of these issues used in this dissertation.

### 4.2 Research approach

Different approaches were used in answering the research issue. Firstly an explorative approach was used by going through the literature to document the shareholder value and mergers and acquisitions related issues in order to gather information on the research issues.

A descriptive approach was used during the theoretical part to obtain a general overview on existing ways of creating shareholder value and methods of measuring it. This approach was further applied to identify the impact of mergers and acquisitions on shareholder value creation. In order to explain what ought to be done in creating and measuring shareholder value, a prescriptive approach was adopted.

The use of these approaches were best suited for the dissertation as it enabled the writer to document, describe and prescribe the findings in order to answer the research issue effectively.

### 4.3 Positivistic and hermeneutic perspective

By using a positivistic or hermeneutic conceptual framework, any scientific problem can be analysed. From a positivistic perspective, there is a mind-independent that can be described with objective language. Statements are only meaningful if they are synthetic and represent contingents or empirical truths, or analytical in nature to represent formal truth. The meaning of the statement is delivered from the method of its verification. Patton (1990) stated that in a positivistic approach the empirical research data is the most important. Scientific conclusions have to be verified with empirical data.

Hermeneutics study refers to an interpretive understanding of or meaning with special attention to context and original purpose. It takes the position that nothing can be interpreted without a little perspective. According to Patton (1990), the first priority of any study is to capture the perspective and elucidate the context of the people being studied. The researcher's own perspective must be made explicit. The hermeneutic approach is one which has strong emphasis on the overall view and assumes that all actions, social norms and values have a human foundation.

The positivistic approach was chosen as the best approach for this study since the empirical data collected from the company was used to draw conclusions. This would imply that this case study places great emphasis on the empirical data collected. Furthermore the empirical data is from the company's perspective towards measuring shareholder value and the creation of shareholder values as a background. This will ensure that the researcher's personal view or societal norms does not influence the collection of data. This would result in the study showing how the creation and measuring of shareholder value pertains specifically to strategic processes by the Sage Group plc before drawing any conclusions.

#### 4.4 Quantitative or qualitative methods

Quantitative and qualitative methods are two methods that may be used in research. In the quantitative study, the focus of the research is on quantity and its goals are predictions, control, description, conformation and

hypothesis test. Its associate phrases are experimental, empirical and statistical. The sample in the study may be large, random and even representative. The data collection is done through inanimate instruments such as scales tests, surveys, questionnaires and computers. The mode of analysis is deductive by statistical methods and the findings may be precise, narrow or reductionist.

In contrast, the qualitative study usually involves fieldwork whereby observation is the key factor. However, as exceptions, some qualitative studies can be taken from literature alone. The focus of the research is quality, which may be defined as nature and essence. Its associate phases may be naturalistic, grounded and subjective. The sample may be small, non-random, purposeful and/or theoretical. The goals of the qualitative study are usually comprehension, description, discovery, meanings and hypothesis generating. Here the researcher is the primary instrument for data collection. Data is collected by the use of interview, observation and documents. The model of analysis is inductive and the findings are comprehensive, holistic, expansive and very descriptive.

Due to the nature of the study, this research is mainly qualitative. It was advantageous to use this technique, as it allowed the researcher to identify, understand and tackle the research issue in great depth thus contributing to the relevance of the study.

#### 4.5 Data Collection

Booth et al (1995) describes research as “simply gathering the information you need to answer a question and thereby help you to solve a problem”. The gathering of information or collection of data was used to carry out this study. As the gathering of data was one of the most important aspects of the research, it was critical to determine accurately what type of data will best answer the research issue. In order to obtain a balanced picture, it was more appropriate to make use of the literature study and empirical data collected.

The detail of how this was used and the type of information that was used is described below.

#### 4.5.1 Literature study

The literature study reflects all information that has been collected by other researchers for various projects and that is available for reference purposes. The source for the literature study was books, articles, databases, company annual reports and company websites. The literature study was used to obtain base information on mergers and acquisition as well as shareholder value creation and measurement. The annual reports of the Sage Group plc were used not only to extract financial data but also to provide information on in-house corporate ventures. This data was used to gain a better understanding of the subject and problem statement in order to devise a basic foundation to complete this research.

#### 4.5.2 Empirical data

Empirical data stands for the information that is collected by the researcher from fieldwork. As outlined above, different methodologies were used to gather information. The most appropriate method used in this study, to collect the empirical data, was interviews.

The reason behind choosing interviews was based on the nature of the study and was believed to be the most efficient way of gathering reliable, detailed and current information first hand. Cooper and Schindler (2001) concurs that interviewing is the major source of qualitative data needed for understanding the phenomenon under study. Furthermore, interviews are a form of controlled interaction, which uses verbal exchange as the main method of asking pre-determined questions and it has both direction and shape. It is designed for a specific purpose and provides opportunities to the interviewer to explore the reasons for the interviewee's response. It also ensures that questions, which are not easily understood, can be rephrased.

All the interviews were restricted to targeted members employed at the head office of Sage plc based in Newcastle-upon-Tyne, England, since it is the holding company that is directly involved with acquisitions and not the subsidiary companies. Furthermore as this is a case study on the group, all information that was collected was directed at group level. Due to the location of the head office, all interviews were conducted via the telephone. The interviewees were initially selected by means of an email letter requesting the individual's permission to be interviewed. The message was directed to the contact persons in the respective departments explaining the relevance of the proposed interview, as well as a concise outline of the research project that explained the purpose of the study and the kind of information required.

A follow up email letter was forwarded to the respective persons as directed by the first email; again the research issue, purpose of the study and the kind of information required was highlighted thus ensuring that the most appropriate interviewee had been identified to contribute to the case study. Upon confirmation from the selected person, a date and time was booked to conduct the telephonic interviews.

All interviewees were of different characteristics since they worked in different departments and held different positions within the company. Although their tasks were not exactly similar, all of them work with or are in charge of in-house corporate information or have access to information relating to acquisitions and the creation and measuring of shareholder value. Based on the above information, and on how the interviewees responded during the interviews, it was strongly believed that the most appropriate persons were identified to be interviewed and the information gathered adequately resolved the research issue.

Anderson (1998) argued that the structure of the interview was based on the principle that research interviews generally focus on collecting data or information that is essential for a larger task of learning or deciding about something. Such research takes many forms. The types of interview used depend on the amount of structure desired. There are highly structured

interviews whereby the wording and order of the questions are predetermined and formal in nature. Semi-structured interviews are characteristic of a mix of less structured questions or alternatively a blend of both structured and unstructured forms of questioning. Finally unstructured interviews focus more on asking open-ended questions which are more flexible and thus more exploratory.

This study used semi-structured interviews whereby a mix of more or less structured questions were used to gather information. This method was believed to be more appropriate for this study since areas in the study required all interviewees to contribute individual points of view. Structured questions were used where the feedback required was the same for departments within the company while some questions were more of an open-ended nature to allow interviewees more flexibility in answering questions about their job and relevant duties.

The type of questions could be categorised as knowledge questions, identified by Patton (1980) which aim at finding out what is believed to be factual information to the research issue. Other types of questions include opinion value questions which aims at what people think; feeling questions which help to understand the emotional response of the people, their experiences and thoughts; and experience/behaviour questions whereby the description of their experience, behaviour, actions, and activities are observed and elicited. Using these different types of questions contributed towards collecting information that was of a good variety and quality to address the research issue. Furthermore this ensured that the information collected contained appropriate facts, opinions and was descriptive.

The most appropriate form of gathering data person-to-person is to conduct an interview whereby one person obtains information from the other. As explained above, telephonic interviews were used due to the location of the interviewees. In conducting the interviews, a good and dynamic relationship was established with each of the interviewees by encouraging them to freely express themselves in response to the question at hand, thus ensuring that

the response was open and without any manipulation by the interviewer. In certain instances questions which were complex to answer in brief, were rephrased and all responses that were not thoroughly graspable were immediately clarified in order to avoid possible misinterpretations.

All conversations and responses were recorded and transcribed and analysed following the interview to ensure that no information was omitted from the findings. In some instances the transcribed responses were emailed back to the interviewees for their verification and to ensure the material was accurate and authentic.

#### 4.6 Research sample

As the research is a case study on Sage plc, all questions and data collected were restricted to Sage plc alone. The interviewees were selected based on their positions and duties in the company. It was an important condition that the interviewees be key decision makers and has at least a working knowledge on the research topic.

A total of five people were selected from within the financial department and senior management team. These employees were based at the head office of Sage plc.

#### 4.7 Research evaluation

##### 4.7.1 Validity

Cooper and Schinlder (2001) explained that the internal validity is determined by how much control has been achieved in the study. They defined the external validity as the extent to which the result of a study can be generalised to other settings and samples. Internal validity deals with the question of how one's findings match reality.

To reach a high level of validity much emphasis was placed on the literature review and the definition of the research issue. The formulation of the interview questions were done with much attention thereby ensuring that the subject under study was adequately covered. The research issue was clearly explained to the interviewees beforehand so that they could obtain a good understanding of the study.

The validity of the study was also increased by the correlation between the results of the research and the primary data since the analysis and interpretation was mostly based on the information extracted from the interviews.

#### 4.7.2 Reliability

Reliability concerns how much randomness there is in a particular measure. It refers to the extent to which studies can be replicated. In other words would the study yield the same results if repeated? In this study the main source of the empirical data collected was the series of interviews. In each interview people gave their points of view which may be different from person-to-person which could result in a loss of a certain degree of reliability. If the study was repeated, the answers to the questions could be different as people might have changed their views on the topic or their work circumstances could have changed.

Despite these factors which are likely to influence the study, the study contains a considerable degree of validity. The assumptions behind the theories and the theoretical frame of reference was based upon reliable and objective sources to ensure that a certain amount of reliability was guaranteed. By setting appropriate questions and using multiple sources and methods, the reliability of the study was increased.

#### 4.8 Conclusion

The methodological part indicates that the study was done under the positivist perspective. The explorative, descriptive and prescriptive approaches were used in different sections of the study. Due to the nature of the study a qualitative approach was adopted. The literature review data was collected from different documents, books, journals magazines and Web sites while the empirical data was collected from interviews. The validity and reliability of the study was discussed and evaluated.

The next chapter discusses the empirical study undertaken on Sage plc and the answers to the questionnaire (appendix 1) is detailed and discussed.

## **5. CHAPTER FIVE - Empirical Studies**

### **5.1 Introduction**

The research methodologies used in this study was outlined in the previous chapter. The questionnaire was identified as one of the method used to collect data.

This chapter discusses the empirical study undertaken to put together a case study on the Sage Group plc on creating and measuring shareholder value through acquisition. The answers to the questionnaire are detailed and a brief analysis is done. A full analysis and evaluation of the answers are covered in Chapter six.

For ease of referencing the questions have been numbered and the responses have been numbered “a” to “e” indicating the individual interviewee’s response. The use of brackets [ ] was used to assist with conveying the respondents intended meaning. Analytical remarks are used throughout the analysis to assist in the interpretation. The responses have been edited to firstly refrain from overwhelming the reader with information and secondly to convey the gist of the meanings obtained from the interviews.

As there was a fair amount of overlapping in some of the answers provided certain answers were omitted to prevent duplication.

Management responses relating to the questions were as follows:

### **5.2 Interviewees**

All interviews were restricted to the key personnel of Sage plc based at the head office in Newcastle-upon-Tyne, England. Due to the location of the head office, all interviews were conducted telephonically and information collected was verified by email. This ensured that the information collected was authentic and not manipulated in any way by the researcher.

The interviewees were selected based on their positions and duties in the company. It was important for the interviewees to be key decision makers and have a through working knowledge on the research topic.

As an introduction, all interviewees were asked to introduce themselves and provide some basic background information such as educational qualification, professional experience, current position within Sage plc and the number of years employed with the company. Their details are summarised below.

- The Group Financial Director (A)
  - Responsible for the overall control of the group finances.
  - 16 years at Sage plc
  - Holds an MBA and a CIMA
  
- The Group Financial Controller(B)
  - Responsible for the overall preparation and presentation of the group performances.
  - 8 years at Sage plc
  - Is a Chartered Accountant (UK)
  
- The Group Managing Director(C)
  - Responsible for the overall running of the group
  - 18 years total cumulative service at Sage Group
  - Holds a Masters in Commerce and a BSc in computer Science
  
- The Director New Business(D)
  - Responsible for new business and mergers and acquisitions
  - 8 years at Sage plc
  - Is a Chartered Accountant (UK)

- The International Business Manager(E)
  - Responsible for the management and operations of all international divisions (outside England)
  - 7 years total cumulative service at Sage Group
  - Is a Chartered Accountant (SA) and MBA

### 5.3 Creating Shareholder Value

The interviewees were asked about the company's strategy on creating value through acquisitions. They were asked to comment on the reasons for implementing this strategy as well other methods that could be used to achieve an increase in shareholders value.

1. ***Sage's corporate policy is to drive growth through acquisitions. Do you consider this strategy to be an appropriate method for growth?***
  - a. *-Growth is mainly driven through acquisitions. In this ever changing IT market it is important for us to maintain [an] increasing customer base and offer new products and this we achieve through acquisitions."*
  - b. *"The company has increased revenues over the changes and this was largely due to the acquisition program in place. Yes, the strategy is appropriate as it has achieved the desired outcome."*
  - c. *"Sage Group has grown over the past 20 years as a result of this strategy [growth through acquisitions]. Acquisitions allows us to acquire new product range[s] at a faster pace than R & D [would allow]. New acquisitions allow us to expand our existing customer base thereby increasing revenue by cross selling and upgrading of our exiting product range. Although acquisitions accounts for substantial increase in revenues year on year, the increased customer base allows us to grow organically "*

- d. *“In the software industry it is all about effective products and increasing customer base. There are constantly new products being delivered virtually every day and one needs to be on top at all times. Acquisitions have given Sage the edge and growth at a faster pace.”*
- e. *“This strategy of growth through acquisitions has allowed the group to expand into an international software company. They have grown from a small UK company to one of the largest software companies in the world in the mid market division. Acquisitions have proved successful for Sage [Sage plc] over the years.*

It was revealed that the company drives growth through acquisitions in order to increase revenue and profits. The group financial director emphasised that although growth is mainly driven through acquisitions, the company had also increased revenue organically through the upgrade of products and farming of the existing customer base. According to Sage plc's annual reports for 2002 and 2003, revenue had increased year on year by 22% and 24% respectively. Acquisitions had accounted for over 85% of these increases.

**2. What are the possible reasons for choosing this particular strategy?**

- a. *“Due to the nature of the company's business, it is vital for us to continue to increase market share and geographical representation in order to achieve growth. In the software industry, organic growth is limited and comes at a price. R & D is very costly and time consuming and this can be problematic in the software industry. Acquisitions allow us to acquire new products more economically and enter new markets and areas almost immediately. Sage plc has through the acquisitions of various companies over the past 10 years dominated the SME market in Europe and North America. We have acquired new products and territories that would have been impossible to achieve over such a short period of time without acquisitions”*

- b. *The main reason for choosing this strategy was to achieve growth at a faster pace than organic growth.”*
  
- c. *“Being excellent in operation is a key to growth. Creating shareholder value is all about ,how one runs the whole business’. Efficiency and excellence in operations is paramount to a successful business. This has positioned Sage plc as the leading supplier of financial software to the SME market worldwide. Acquisitions has allowed us to achieve our objectives and this has resulted in rapid increases to our customer base and market share over the past eight years.”*
  
- d. *“This strategy allows us access to new customers and geographical areas. It helps to build brand awareness.”*
  
- e. *“In this industry market share is crucial to your success. This strategy has allowed us to increase our market share thereby expanding our customer base over the years,”*

Companies can use various methods to increase shareholder value. At Sage plc, the use of acquisitions to increase customer base, geographical representation and product range is used quite extensively to drive growth and shareholder value.

The group financial director indicated that acquisitions allowed the company access to new markets and products. The acquired product range is more economically and less time consuming than investment in R & D.

Although acquisitions would allow Sage plc to continue to grow, it can not continue indefinitely. Since the life cycle of all software products are relatively short lived in terms of technological advancement, it is important for the company to ensure that it engages in a continuous research and development program to maintain the advantage over the long term. The company invests heavily in R & D and according to notices published in the company’s annual reports an average of £57 million was spent each year from 2001 to 2003.

Whether this outlay is adequate to meet corporate objectives has not been established, but the company must ensure that its investment in R & D provides them with additional market share and geographical representations. This would allow the company to continue to grow without being wholly dependent on acquisitions.

The Director of new business stated that the company plans to occupy a considerable sector in the market arena and be well known. Acquisitions are the most logical route to achieve this overnight. According to their company's website (Internet 9) the company is using acquisitions to achieve brand awareness.

Acquisitions offer limited brand awareness and over a specific time period only. In order to occupy a considerable place in the market, the company has to ensure that the product name —~~sag~~ becomes a household name. The company would need to market their brand effectively and ensure that all new products acquired are associated with their brand name. They have in the past used the name Sage as a prefix to new brands, for example when the company acquired Tetra Software they re-branded the Tetra products Sage-Tetra. Other factors like customer service, effectiveness of the product and general marketing, need to be considered as well.

### **3. *How successful is this strategy?***

- a. *–The success of this strategy is indicated in our financial performance. The company has exceeded targets over the past 10 years. All acquisitions are measured with our performance management tools.”*
- b. *“It is hard to assess this off hand without an in-depth analysis of the company's performances. One can not look at the management accounts and determine if the strategy is successful or not”*
- c. *“Our increased growth and increased share price over the years is testament to the success of the acquisition program.”*

- d. *“Yes, it has been successful but more on a long term measure rather than immediately.”*
- e. *“With all acquisition programs success was achieved in the long run. The immediate benefits would be the additional customer base and new markets.”*

The interviewees, who said the strategy was successful, relied on the profitability of the company and the increased share price over the period. Some indicated that since they use EVA as a value based management measure, they were aware that they had achieved their targets over the period which would imply that their strategy was working.

The interviewees who were uncertain about whether the strategy was a success indicated that they did have all the financial information on hand to arrive at a conclusion and can not base the successfulness of the acquisitions program just on the management reports. Some indicated that they needed more information and calculations to arrive at an answer.

Those that indicated that they can not be sure on the success of the strategy on the short term believed that in the long run the strategy was successful; they argued that with acquisitions, gains are achieved in the long term. With proper execution and integration of the acquisitions program, synergies could be achieved in the long run. The company must ensure that the acquired company is efficiently integrated into its operations

- 4. ***Are there other possible strategies for growth that the company could have chosen? Would you consider these alternate strategies as more effective than the acquisitions strategy?***
  - a. *“Companies can use various methods to achieve growth. Adjusting of the capital structure, buying back of shares etc. These strategies are*

*not used by us as our growth is achieved organically or through acquisitions”*

*b. “Accounting [text books] suggest various textbook methods of achieving growth and the list could go on. But these methods are not used at Sage.”*

*c. “Growth is achieved mainly through acquisitions at Sage plc. We do not use any other strategies and are not considering any other strategies.”*

*d. “Effective operation of your businesses can deliver growth. This would mean improving or eliminating poor units or reducing cost.”*

Although not used at Sage plc, having the correct capital structure was suggested as a possible way to increase shareholder value. According to Rappaport (1998), the objective is to have capital structure that enables financial flexibility and long term stability and at the same time conducting operations by using capital efficiently. By adjusting the capital structure, shareholder value can be created. Capital structure refers to the mix of shareholders funds and long term debt. An increase or decrease in shareholders funds within the capital structure would alter the ROE. However this method will not necessarily improve revenues.

Other methods suggested by the interviewees are:

- Buying back of shares;
- Eliminating poor business units or divisions;;
- Improving brand names and innovations;
- Releasing positive information on the company in the market place;
- Improving customer value; and
- Reducing costs.

Although buying back its own shares was suggested as a means to increase shareholder value, Sage plc had not adopted this practice in the past and

according to the Financial Director, it was very unlikely that the company would use this method in the future. When a company buys back its own shares, the return on shareholders equity would increase without increasing revenues.

The interviewees concurred that Sage plc does not concentrate on the elimination of poor business units or divisions. It would be detrimental to any company to continue investing in poor performing units. The elimination or restructuring of poor business units is important to achieve growth and to improve returns. The company's trading results broken down by product for the financial years ending 2001, 2002 and 2003 was analysed from the group annual reports and are listed below.

**Table of Revenue and NOPAT return for the years 2001 to 2003 by product**

	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>
	<b>Accounting Core Products</b>	<b>Accounting Non-Core Products</b>	<b>CRM</b>	<b>Total</b>
<b>Revenue</b>				
2001	263 785	131 893	153 875	549 553
2002	263 7447	131 874	203 805	599 425
2003	323 455	138 624	198 034	660 112
<b>NOPAT return on Revenue</b>				
2001	24.23%	18.76%	17.70%	21.09%
2002	25.04%	19.44%	20.87%	22.39%
2003	26.77%	19.21%	21.33%	23.55%

(Table 5.1 of Revenue and NOPAT return for the years 2001 to 2003 by product)

(Analysed from Sage plc Annual Reports from 2001 to 2003)

This analysis revealed no poor performing divisions and it was concluded that any poor performing divisions would have been restructured or incorporated into other divisions.

According to the company's website (Internet ref 2) customer value is important to the success of the company. Sage plc consider service delivery as an important aid to increase revenues.

The interviewees agreed that disclosing information about the company was a considerable step in creating value and almost all of them stated that the company gave out an adequate amount of information to the market. Disclosing the right information to the market will influence the market's perception of the company and its future well being. However, it can be argued that the market's perception of the company does not represent the true value of the company and would not determine it's future performance and existence. Profitability and performance are not dependent on the markets perception.

One of the outcomes of any company's strategy is shareholder value creation. All senior management at Sage plc are made aware of this fact and various valued based management measures are in place to ensure that all management teams are performing to expectations. It was identified that shareholder value creation was an explicitly communicated key corporate objective.

**5. *Is shareholder value creation an explicitly communicated key corporate objective?***

- a. Yes, it is across all senior management.*
- b. It goes without saying. It must be the core reason for any business's existence"*
- c. All management are aware of this. Value creation at Sage plc is important for our continued success and is constantly measured to ensure that management performance is achieved and targets met."*
- d. "Definitely"*

- e. *“That’s [profitability of a business] what it is all about.”*

One of the outcomes of any company’s financial strategy is shareholder value creation. All senior management at Sage plc are made aware of this fact and various valued based management measures are in place to ensure that all management teams are performing to expectations. It was identified that shareholder value creation is an explicitly communicated key corporate objective.

**6. *What can the company do to increase shareholder value perspective in the long run?***

- a. *–We need to continue to focus on acquisitions.”*
- b. *“ It is important for the company to maintain it’s good results and credible earnings in the long term”*
- c. *“Acquisitions have to be targeted and implemented effectively to reap the benefits quickly. The targets identified must fit in with the company’s requirements and be able to offer additional products or a customer base or geographical territories that will improve our international presence. This will ensure continued long term operation,”*
- d. *“The company must continue to be managed efficiently and costs kept under control so that growth and profitability is maintained in the long term.”*
- e. *“Our current strategy works well for us and we need to stick to it and long term goals will be met.”*

The long term creation of value is important for both the shareholders and the companies. The interviewees agreed that the creation of value in the long

term is important for the company and its shareholders. Different points of view were identified towards the ways in which the company plan to make this happen and relevant processes implemented to achieve success.

Although all interviewees mentioned various methods and reasons for the continuation of the company's long-term growth, no one discussed the possible limits to growth with the present acquisitions strategy. What would happen once the acquisitions program reaches its end? The company would need to further develop its growth organically and one of the methods would be to invest more in R & D. This would ensure that their products meet the needs of a fast changing market.

**7. Does the company apply any value based management principles?**

- a. *-EVA is used across the board to monitor performances and profitability."*
- b. *"Sage does use value based management tools but this is done at head office [Sage plc]."*
- c. *"It is important for us to use some sort of value based management tool to measure our performances and to reward senior management. This drives greater internal efficiency which generates higher margins."*
- d. *"Yes we do use value based management tools to monitor performances."*
- e. *"The company uses EVA to measure performance across the board."*

All interviewees were aware of the use of value based management principles at Sage plc. They confirmed that value creation was important to the company and their performances measured and rewarded according to the value created. The model for value creation was identified as EVA. Sage plc uses

value based management measures not only at its head office but at all its subsidiaries. This, according to the interviewees, ensures that efficiently is achieved in all subsidiaries and not only at head office.

#### 5.4 Measuring Shareholder Value

After obtaining information on how Sage plc created shareholder value, it was investigated how this value creation was measured.

**1. *What methods are currently used to measure shareholder value creation or how does the company measure whether its acquisitions program is indeed creating value?***

- a. *“As discussed earlier the company makes use of EVA”*
- b. *“EVA”*
- c. *“The main performance measure used is EVA, although we also make use of other traditional accounting measures like EPS, ROII and DCF.”*
- d. *“The company uses EVA”*
- e. *“EVA”*

In replying to this question concerning the methods used to measure shareholder value creation, all the interviewees replied that the EVA model developed by Stern Stewart and Company was used at Sage plc to measure value creation.

The interviewees considered this as the main measure for shareholder value creation. They mentioned that the aim for using EVA was to improve margins and create profitability growth. The directors interviewed identified EVA as the program used to reward top management for their performances. Bonuses and share options were based on the EVA model.

**2. What are the reasons for choosing this type of measurement?**

- a. *It is simple and practical with a positive effect.*
- b. *It is one of the most modern value-based measurements around and is very effective.*
- c. *It is an accurate measurement tool used to assess if every business unit is able to cover its cost of capital.*
- d. *We've been using it since 1999 and never looked back. It is easy to use and understand.*
- e. *Although the calculations can be somewhat long, it is clear and concise. It delivers what is required and all senior management are happy to use this measurement tool.*

One of the reasons mentioned by the managing director for choosing EVA is that it helps the company's management to assess whether every business unit is able to cover its cost of capital. Copeland Koller and Murrin ( 2000) has identified EVA as one of the more accurate and modern measures used to measure value creation and reward management for their performances. The management at Sage plc has also mentioned as noted earlier, that EVA is used in bonus calculation and share options.

The directors pointed out that Sage plc have been using EVA since 1999 and not looked back since. They are completely satisfied with this measurement model and believe it to be practical with a positive effect. They also believe that the measure is simple to use. Management reports have been amended to ensure that the information required to facilitate EVA calculations were readily available.

**3. Was this method developed internally or modified to suit the company?**

- a. *–We have adjusted the original Stern Stewart EVA model to satisfy our requirements.*
- b. *“Modified by the finance department.”*
- c. *“The model was changed in line with our requirements.”*
- d. *“[The model was] Modified to suit the company.”*
- e. *“Modified.”*

All the interviews concurred that the original EVA model developed by Stern Stewart and company was modified to suit the company’s requirements. The financial director identified the following EVA model used by Sage plc.

Net Sales
Less Cost of goods sold
Less Direct Cost
Less Marketing
Less Administration cost
Less Taxation
Equal NOPAT
Less WACC x Net Assets
Equal value created (destroyed)

Appendix 5 details the calculation of Sage plc’s WACC. All information for the calculation was extricated from the company’s annual reports and financial websites as noted in the calculation. (internet ref 9)

The EVA model used by Sage plc was amended to suit the company and only takes into account the basic adjustments. The authors of EVA, Stern Stewart and Company, recognize that there can be a lot of adjustments to NOPAT before EVA can be calculated. The financial director has confirmed that some adjustments as per Stern Stewart and Company were not taken into account but this had no major impact on the validity of the figures used by management.

They are quite confident in the merits of the amended measure used for management.

**4. What are your views about the strengths and weaknesses of this chosen performance measurement? Do you personally consider this as an appropriate measurement and if not what measurement would you have chosen and why?**

- a. *It is fair and adequate for our use. Despite the numerous adjustments that had to be made on the management accounts, the finance staff had over the years grown to like this measure. We would not change from the use of EVA as it suits our needs.*
- b. *“This is one of the most advanced and modernised performance measures. It is a market leader among the more traditional accounting measures [measurement tools]. We could use DCF in conjunction with EVA like other companies but I am sure the board of Directors would maintain EVA as they have no valid reasons to change.”*
- c. *“We had initially identified this [the EVA model] as the most appropriate measurement tool for our needs. The merits of the model are unquestionable. Senior management are pleased with this model and it is very unlikely that we would change”*
- d. *“The model is simple to understand and the results are easy to interpret.”*

- e. *“It is clear and concise. It reveals whether targets have been met or not.”*

The interviewees were asked to give their views on the chosen measure and if they would have implemented any other measures. This was done in order to investigate the advantages and disadvantages of using EVA and to obtain information on other more suitable performance measures.

As all the interviewees were using EVA, they commented that this measure was fair and adequate for their current use. One interviewee mentioned that despite the numerous adjustments that had to be made to the management accounts in order to calculate EVA, they had over years grown to like this measure.

The group financial controller stated that although EVA was a market leader among new measures, some companies used other more traditional measures like EPS and ROI. He went on to add that during his years of employment at other companies, DCF was the most commonly used measure. He added that it would be more appropriate for EVA to be used in conjunction with DCF or some other measure like CVA. When asked about other measures, the group financial controller stated that DCF was easier to use than EVA, and he would change to DCF if given the option.

The financial director commented that the board of directors were happy with the use of EVA and confident in its application to measure value creation. He added that the use of EVA was solely for performance measurement and not prediction of future performance of the company. He stated that the company made use of the DCF model to predict the anticipated performance and other traditional methods of accounting measure were also used. He refused to go into more detail in this regard.

The financial director's reluctance to expand on the value based management tools used was understandable since details of the calculation and approach

used may be proprietary or otherwise sensitive to the company. However, conclusion can be drawn from this statement in respect of the type of measurements used and its accuracy.

The use of traditional accounting measures like return on equity, return on revenues and various liquidity ratios was most likely used in the normal running of the business. These ratios would allow management to manage the company's working capital effectively and ensure that targets were within budget and forecast parameters.

EVA was the value based management measure that allowed for a charge for the cost of capital to be made against profits. EVA had taken into consideration other adjustments to eliminate accounting anomalies. EVA has proven to be effective in its use to predict value creation. Ehlbar (1998) claims that the EVA framework provides the “new lens through which managers view a corporation”. This measurement tool developed and patented by Stern Stewart and Company, provides a very accurate measure of value creation and can be used effectively in decision making from the board room to the operation floor.

Sage plc most likely uses EVA not only to calculate value creation but also as a management tool to assist with management decisions. It has been shown in the literature review that EVA can be used in conjunction with DCF to predict future performance. It can be argued that DCF was highly loaded with assumptions. However, provided that these assumptions are reasonable, it can be an effective management tool for future prediction of financial outcomes. Value based management is a perception and not a scientific fact. It is based on reasonable assumptions which are derived from past performances.

The DCF will reveal if the current profitability and growth can be sustained. A detailed analysis of this long term growth is discussed in chapter six.

**5. Does the company regularly test the validity of the chosen performance indicators as predictors of future performance and adjust the indicators as and when necessary?**

All interviewees agreed that it was important to test for the validity of the performance used in a company and to make adjustments if there are any shortcomings. However some of the interviewees were uncertain of the validity of the measure to predict future performance and they believed only the board of directors would change from EVA or make any adjustments to it.

## 5.5 Mergers and Acquisitions

After obtaining information on Sage plc creates and measures shareholder value, it was investigated how acquisitions is used in the creation of shareholder value.

**1. It is generally said that the target companies benefit more from mergers and acquisitions. What are your comments on this?**

- a. *“Whether acquisitions benefit target companies would be more academic. It must be important to understand the reason for the acquisition or merger. We at Sage plc have made over 20 acquisitions over the past 10 years and this have proved profitable.”*
- b. *Generally acquisitions would benefit the target company in the short term but the acquiring company would normally reap the benefits in the long run.”*
- c. *“Acquisitions have played a crucial role in our growth over the years. We have used this process to our benefit and it has proved very profitable.”*
- d. *„Although acquisitions benefit the target companies, with proper planning and execution, an acquisitions strategy can add value to the*

*acquiring company. At Sage plc, acquisitions have allowed the company to increase its customer base thereby allowing it to sell other complimentary products.”*

- e. *”It would be hard to assess the impact immediately. I am not too sure on who benefits more, however Sage plc has benefited from this process”*

Research undertaken by Best Practice LLC of North Carolina in 2002 indicated that acquisitions generally benefit the target companies. The interviewees were asked their opinions on this statement. Some indicated that they were unsure while others stated that Sage plc benefited from acquisitions which had proved profitable over the years.

Deloitte and Touche consulting concurred that acquisitions can be successful and profitable for the acquiring company provided the acquisitions process was effectively managed. They revealed that most acquisitions fail as a result of poor planning and integration. (Internet ref 1) Their Mergers and Acquisitions Model (figure 2.5) suggests that all four stages of the acquisitions process namely, strategy development, target screening, transaction mechanics and integration are important and need to be carefully executed.

## ***2. Who is in charge of the acquisitions program?***

All responses indicated that the Board of Directors has set up a special team headed by the Group Financial Director to manage the acquisition program.

## ***3. Sage acquires companies to drive growth. What key factors does the company look for when acquiring and a target? Does the company have a specific model for identifying target companies?***

All interviewees referred these questions to the group financial director, who when asked indicated that he would not like to comment on this. He felt his

comments would relate directly to the company's operation policy and that would require divulging certain proprietary or otherwise sensitive information. However based on the responses to the other questions it can be deduced that the target company must have a different geographical representation or product range and a wide customer base.

Analysis of the acquisitions made over the period 1991 to 2003 has shown that the rationale behind the acquisitions was to gain access to new territories obtain new products and enter different market segments. In 2001 Sage plc acquired Interact software to gain access to a fast growing CRM market. With the acquisition of Tetra in 1999, Sage plc, a dominant player in the lower end market, was able to penetrate the mid market division (internet ref 9).

Sage has targeted companies to supplement and or compliment their product range and expand into new markets. Their acquisitions process can be linked to the basic Deloitte and Touche model (figure 2.5). They have identified their targets and have integrated these new products into their own. Their success would seem to lie in the successful integration of the acquired business. Sage's customer base has increased considerably year on year and this was largely due to the acquisition process (Sage plc Annual Report 1999 to 2002). The larger customer base has allowed the company to cross-sell its existing products to the newly acquired customers' thereby improving revenues. This is just one of the fruits of a successful integration process in mergers and acquisitions.

## 5.6 Conclusion

The questionnaire has revealed that Sage drives acquisitions to increase growth thereby adding value. The main reason behind the acquisition process is to increase market share and their customer base. They also use this process to acquire new products at a faster pace than internal development.

The company has identified that EVA is the most suitable measure used for performance measurement and value creation. They have adjusted the original model to suit their requirements.

A full analyses and evaluation of the above responses is discussed in the next chapter. The next chapter also analyses and discusses all the information gathered on creating and measuring value and the acquisition process.

## **6. CHAPTER SIX - Analysis and Evaluation**

### 6.1 Introduction

This chapter analyses and evaluates the information collected on creating shareholder value at Sage plc. This section also includes a discussion on how the calculated value is created or diminished over the period 1998 to 2003.

### 6.2 Shareholder Value Creation

#### 6.2.1 Ways to Create Shareholder value

Sage plc's strategy of value creation has been integrated into the daily management of the company. This may be the reason why, for every person interviewed, there were a number of comparable answers given to indicate that Sage plc is indeed focused on creating shareholder value. Sage plc has mentioned in the company's annual reports for the years 1998 to 2003, that the company's overall mission is to create value for all its stakeholders

Acquisitions were identified as the most appropriate way the company chooses to create growth in revenues and profits thereby creating value for the company and its shareholders. Although other methods were mentioned (page 64), Sage plc focussed mainly on acquisitions rather than pursue organic growth. According to the figures in the annual report for 2002 and 2003, over 85% of the growth on revenue statistics has come from acquisitions.

It has been further identified that improving customer value is important for increasing revenues. Sage plc rates customer satisfaction and improved service delivery as key drivers for its continued success. Dalborg (1999) stated in his shareholder value triangle model that customers form an important aspect to the creation of value in a business. Dalborg (1999) added that customers would leave a service if delivery levels are poor.

Excellence in operations was also identified as a key aspect of value creation. At Sage plc management is constantly striving to improve operations thereby reducing costs and increasing profit margins. Dalborg (1999) identified excellence in operations as a key to producing maximum sustainable profit growth from a company's existing asset base. Senior management at Sage plc is focused on reducing costs in order to achieve efficiency, which would have a positive impact on their performance. The company is target driven and works closely with the breakdown of data from forecasts and budgets.

### 6.2.2 Reasons for Acquisitions

Sage plc uses acquisitions to:

1. increase product range;
2. increase marketable territories;
3. increase geographical territories; and
4. increase customer base.

The software industry is a fast moving and constantly changing industry. Research of and development into new products can take a long time and is a very costly process. Sage plc has identified acquisitions as a means to acquire new products. This, according to the answers to the questionnaire, allow them immediate access to new products in markets that would have being too costly to initiate independently. With the purchase of the company Interact in 2001 in the United States of America, Sage plc was able to enter the CRM market with SalesLogix, a CRM software package. This product enabled the company to offer a superior CRM package to an emerging market.

The company's purchase of Tetra Systems in 1991 offered them the opportunity of entering the mid-market division. Sage plc, prior to this, only serviced the lower-end of the market with products like Sage line 50 and Sage line 100. The company realised that its dominance of the lower-end of the software market would eventually come to an end and they would not be able sustain their projected growth rates without targeting an alternate market.

Tetra Systems was a UK-based company specialising in full financial, manufacturing and distribution software for the mid-market division. They were dominant in the UK and Europe. Sage plc's acquisition of Tetra allowed them to enter a new market thereby significantly increasing its presence.

In 2003, Sage acquired Softline (Pty) Ltd, to allow them to enter the South African and Australian Markets in the lower-end division. Softline was a listed South African Company specialising in financial software to the lower-end market with a strong presence in both South Africa and Australia. Sage plc's acquisition allowed them to enter new territories and improve their international presence in the global software industry.

With the acquisitions of various companies, Sage plc has not only increased its product range, market and geographical representation, but also increased a growing customer base. The new customer base now allowed them to cross sell existing products and upgrade customers to products more suitable to their businesses. This allowed the company to increase revenues.

Rappaport (1998) concurred that acquisitions allowed companies to enter new markets and territories and was advantageous over organic growth. Rappaport (1998) added that acquiring a company to gain a strong market position is often less costly than a competitive battle to achieve market entry. Acquisitions allowed Sage plc to realise its objectives more efficiently thereby allowing it to increase its financial and operational performance.

### 6.2.3 Shareholder Value Creation as a Corporate Objective

The shareholder value model indicates that shareholder value creation is the explicitly communicated key corporate objective and it is used as the basis for valuation. The problem is how to know whether Sage plc considers this as a very important step in their process of value creation. The results seem to show that the objective does correlate with the opinions of the majority of interviewees targeted in the study. Although all the interviewees were able to identify various ways in which value can be created, they were unanimous

with the use of the shareholder value model at Sage plc. They considered shareholder value creation as an important aspect of the company's strategy and identified it as one of the key corporate objectives of the firm.

It was evident from the study that Sage plc places great importance on value creation and rewards senior management with bonuses based on value created. This would imply that value creation is explicitly communicated to senior management.

#### 6.2.4 Long-Term Strategy for Shareholder Value Creation

Creating shareholder value in the long run plays a very crucial role for shareholders. All shareholders are eager to find out how their investments are performing. All the interviewees agreed that value creation in the long run was important and most of them suggested ways on how the company could continue to maintain its profitability into the future.

It was emphasised that future acquisitions must be properly targeted to ensure that the implementation brings about benefits to the company. Research undertaken by Best Practice LLC (Best Practice 2002) has shown that acquisitions always adds value if it is targeted and implemented correctly. Deloitte and Touché Consult (Internet ref 1) suggested that if the acquiring company efficiently manages the four steps model (figure 2.5) it would reap benefits not only in the short-term but in the long-term as well. Best Practice LLC (Best Practice 2002) concluded in their research that the synergies gained from acquisitions is only realised over a period of time.

This study has shown that Sage plc uses acquisitions to gain a strong market presence and strives to improve its international image in the long-term. The Company is geared to become the principal software supplier of choice to the SME market.

It has been identified that no comment was made regarding the possible likelihood that the present growth from the acquisitions strategy might reach

saturation in the future. What would happen once the acquisitions program reaches its end? How would the company continue to sustain its growth rate and profitability? These questions are discussed below.

It has been established from the company's website and annual reports that R & D forms an integral aspect of how changes in the financial strategy would affect the company's future performance. Reports state that Sage plc endeavours to continue to improve its existing range of products by launching new improved products to keep abreast with changing market conditions. Although the company targets acquisitions for growth, it invests heavily in R & D thereby ensuring that Sage plc would be able to sustain the growth phenomenon when the acquisitions program comes to an end.

Furthermore it has been established that the increased customer base allows them to sell other products to the newly acquired customers to supplement customers to other programs thereby increasing revenues.

#### 6.2.5 Value Based Management

Value based management (VBM) implies that value creation is at the centre of all activities within an organisation. All operations should create value and this is used as the bases for performance measurement.

Sage plc places great importance in value based management. All senior management are rewarded according to their performances and a value based management performance measure is used to measure their input. Senior management fully understand the concept of VBM and are able to apply its principles. This is the reason why they are satisfied with the use and application of VBM. Management is focussed on creating value for its shareholders.

## 6.3 Measuring Shareholder Value Creation

### 6.3.1 Analysis of Valuation Methods

Although the interviewees mentioned various methods for the measurement of shareholder value, EVA was rated as the most appropriate. The reason for choosing EVA could be related to the fact that Sage plc uses this measure. Other measures mentioned included EPS, ROI DCF and CVA. Measures used by other companies and not mentioned by the interviewees are ROE and TSR.

These measures can be classified into two groups, namely traditional and modern measures. Research has shown that traditional measures fall short in that they do not take into account all relevant factors and some of the more modern methods are often difficult and costly to calculate.

The underlying criteria for value creation, according to Rappaport (1998), is that shareholder value is created —~~when~~ and only when a company earns the rate of return on an investment higher than the rate investors could expect to earn by investing in an alternative, equally risky investment”.

#### ***Earnings per Share (EPS)***

According to Rappaport (1998) the earnings fail to reflect the real picture of a company's performance because of the following reasons:

- It depends on a lot of accounting principles such as various methods of depreciation, pooling of interest versus purchase methods for mergers and acquisitions;
- It ignores time value of money;
- The investment requirement is excluded since its change in economic value and earnings are obscured;
- Investments in working capital are excluded from the earnings calculation; and

- Like other accounting measures, it does not include the opportunity cost of equity.

As a result of this an increase in EPS does not necessary imply that value has been created for shareholders. They could be receiving a higher return than the previous year but it does not compare it to what they could have received if they had invested their monies elsewhere.

### ***Return on Investments (ROI)***

The ROI reflects the return of the net income over the book value of the assets as a percentage. This measure is used to measure the profitability in a company. It will reflect the return the shareholders have received on their investments but does guarantee that value has been created or diminished.

ROI is an accrual accounting measure. It is a single period measure and does not consider events beyond the accounting period. Rappaport (1998) compares ROI to DCF over a single year investment and concludes that it is not an appropriate measure for value creation.

### ***Return on Equity (ROE)***

ROE is similar to ROI and shares similar shortcomings. Here the net income is expressed as a percentage to shareholders equity only. This return would reveal the return the shareholders are receiving on their investment and would generally reveal if the investment is profitable or not.

Here again the return would not reflect if shareholder value was created or destroyed unless it is compared to an economic return like cost of equity.

Both ROI and ROE can be manipulated if the accounting principles are used to change the increase in leverage, asset turnover or improve profit margins. Rappaport (1998) compares an industrial company to a knowledge company where he states that an industrial company would have a higher fixed asset base whilst a knowledge company would have lower foxed asset base as the

funds spent on training, research and development is often written off rather than being capitalised.

### ***Modern measures***

Various consulting companies like the Boston Consulting Group (BCG), Stern Stewart and Company (SSC) and Holt Consulting (HC) have developed more modern metrics to measure shareholder value created. They have taken the traditional accounting measures and made adjustments to overcome the shortcomings. These measures include TSR and CFA (BCG), EVA (SSC) and CFROI (HC).

Gunn (2000) compares these modern measures and highlights their advantages and disadvantages (see table 2.2). According to Gunn's opinion, SVA and CFROI have their own shortcomings despite the fact that CFROI is best for the share price forecasting and SVA is the best model of the incremental business value. The problems with the SVA are that it uses CAPM and users must tailor the model to each company. It can be useful for the corporate forecasting, not for investing. The problems with CFROI are the following: first, the market specific discount rate doesn't make allowance for industry factors or for the global companies to which this discount rate should be applied. This model doesn't work well in some industries, for example, in property, leasing, and exploration, for which estimating the project life is often difficult .

TSR is supported by the BCG. According to them, TSR is a final primary of investors and gives early warning signals. They further state that it is a comprehensive ratio and is hard to manipulate. The measure is helpful in comparing the company's performance of one share against another or against a market index.

However, the focus on relative performance insulates managers from the macroeconomic factors, which are beyond their control. It creates a high hurdle, since by definition half of companies in a given market will under perform the average (Monneri, 1998). Another disadvantage noticed by

Monneri (1998) is that TSR can be measured only for traded companies and only after the fact. Koller and Dobbs (1998) deduced that despite TSR having many merits, it also had several disadvantages.

Any performance measure must incorporate a company's share price performance. It has to do more than simply record how much the stock goes up or down. It should provide how and why the management creates value. There are several shortcomings to the TSR. Share prices are driven by many factors other than management performance. During the period of one to three years over which TSR is usually measured for the purpose of evaluating performance, much of the movement in a company's share price will be driven by the market as a whole or by the industry it operates in.

According to Koller and Dobbs (1998) if the performance is measured on the basis of TSR alone, managers can be rewarded or penalized for events outside their control. Moreover, the share prices in the short term are driven more by differences between actual performance and market expectations and by changes in expectations, than by the level of performance per se. Companies that consistently meet the high performance expectations but don't exceed them have difficulty delivering high TSR. The market may believe that management is doing an outstanding job, but its approval has already been factored at the share price.

TSR assumes that the shareholders will reinvest their dividends only to the extent that another group of shareholders sells their shares. For example, we can take two companies, with the same risk factor, the same total return and market capitalization and if one company's total return is higher than the cost of capital and the company pays no dividends, the shareholders will benefit more. Or, vice versa, if the company pays large dividends but its rate of return is lower than its cost of capital, the shareholders will benefit also; because in this case the company destroys less value.

EVA developed by SSC is developing into a more widely used measure of value creation and performance. Ehrbar (1998), claims that the EVA

framework provides the new lens through which the managers view a corporation". The capital charge, for example, causes the management to consider the effects that their decisions have on the balance sheet as well as income statements and gives them a basis for weighing trade-off between the two.

According to Ehlbar (1998), the formula for EVA includes a lot of adjustments to eliminate accounting anomalies. The adjustments to NOPAT are necessary in order to calculate EVA. The first step of calculating EVA is to decide which adjustments are necessary to the GAAP accounts. The various types of adjustments that can be made include the timing of expense and revenue recognition, inflation, foreign currency translation, inventory valuation, bad debt recognition, intangible assets adjustments, taxes, pensions, post retirement expenses, goodwill and strategic investments.

However, the major adjustments which are necessary to make include research and development, strategic investments, accounting for acquisitions, expense recognition, depreciation, restructuring charges, taxes and balance sheet adjustments. In fact, before a company decides which adjustments to make, it has to consider the following factors. At first, it is necessary to see whether an adjustment is material or if the adjustments are significant to the levels of decision making. If an adjustment doesn't alter decision, it is not worth doing.

### 6.3.2 Acquisitions by Sage plc

Sage has been making acquisitions over the years primarily to increase its customer base, product range and geographical representation. Over the period 1991 to 2003 an amount of £1.22 billion was spent on acquisitions. An analysis of the company's annual reports reveal that the major acquisitions were made over the period 1998 to 2003 where an amount of £1.12 billion was spent. (Sage Annual Reports form 1998 to 2003)

**Table of Acquisitions made from 1991 to 2003**

YEAR	COMPANY	COUNTRY	VALUE (£ million)	RATIONALE
1991	DacEasy	USA	14.6	New territory
1992	Ciel	France	4.6	New territory
1994	Saari	France	19.6	Mid-market entry
1995	Sybel	France	16.6	Mid-market entry
1997	KHK	Germany	40.7	New territory
1998	State of the Art	USA	163.1	Mid-market entry
1999	Peachtree	USA	190.5	New entry level
1999	Tetra	UK	81.1	Mid-market entry
1999	Sesam	Switzerland	11.3	Mid-market entry
2000	Best	USA	286.4	New product
2001	Interact	USA	190.4	New product
2001	MIP	USA	13.8	New product
2002	CPA Software	USA	9.1	New product
2003	Timberline	USA	63.6	New product
2003	Softline	South Africa	66.0	New territory
2003	Grupo SP	Spain	49.1	New territory

*Table 6.1: Acquisitions from 1991 to 2003*

*(Information extracted from the Annual Reports of Sage plc from 1991 to 2003)*

From 1998 to 2003 the company spent £1.12 billion on acquisitions. The company spent £446 million over the period 1998 to 1999 on acquisitions to allow them to enter new markets. The target companies focused on the mid market segment. (Sage plc Annual Report 1998 and 1999)

Over the period 2000 to 2003 the company spent £563 million on acquisitions to allow Sage plc to gain new products in the customer relationship market (CRM). Sage prior to this had no product offering for the CRM market and it would have costly and time consuming to develop its own product range. The logical approach was to acquire companies that have these products. Sage plc Annual Reports 2000 to 2003)

In 2003 Sage spent £115 million on acquisitions to gain entry into the South African and Australian markets. Sage plc purchased Softline Ltd, a South

African company offering software to the SME markets. Softline also enjoyed a considerable market share in the Australasian market. The further purchase of Accpac from Computer Answers allowed Sage plc to dominate the South African and Australian markets as Accpac also served a huge portion of the South African and Australian markets. (Sage Annual Report 2003)

### 6.3.3 Calculation of EVA

All financial information for the calculation of EVA for Sage plc was extracted from the Annual Reports for the years 1998 to 2003. Although Sage plc has made acquisitions since 1991, the calculation for shareholder value added is only done over the six year period, 1998 to 2003 as this was the period of major acquisitions. The total value of acquisitions from 1991 to 2003 was £1.22 billion out of which £1.12 billion was from 1998 to 2003. (Sage Annual Reports 1991 to 2003)

Copeland Koller and Murrin (2000) identified various adjustments that needed to be made to NOPAT in order to calculate EVA. All GAAP accounts have to be adjusted for timing expense and revenue recognition; inflation; foreign currency translation; inventory valuation; bad debt recognition; intangible assets adjustments, taxes; pensions; post retirement expenses, goodwill, strategic investments and R & D expenses.

However, the major adjustments that were taken into account for this calculation included goodwill, R & D expenses written off, and timing differences (provisions). Ehlbar (1998) argued that before a company decides which adjustments to make, it has to consider if an adjustment is material. Would the adjustments significantly affect decision making? If so, then it does need to be taken into account.

Based on this, only the adjustments listed above were considered material and taken into account.

The WACC used to identify if shareholder value was created or diminished was calculated from data extracted from the company's annual reports and from financial websites. Appendix 5 gives a detailed calculation of WACC.

**Table of EVA calculation from 1998 to 2003**

	1998	1999	2000	2001	2002	2003
	£ '000	£ '000	£ '000	£ '000	£ '000	£ '000
Shareholders Equity	355,766	402,263	465,531	536,946	621,731	715,747
<i>Adjusted for</i>						
Current & Past R & D	334,095	383,979	435,313	491,541	549,366	607,345
Minority Interest	0	59	73	99	121	144
Total Debt	134,556	137,668	149,884	158,115	157,194	170,871
Adjusted Total Capital	824,417	923,969	1,050,801	1,186,701	1,328,412	1,494,107
NOPAT	67,511	89,114	101,226	121,317	129,154	155,907
R & D Costs	48,664	49,884	51,334	56,228	57,825	57,979
Movements in Provision	18,994	19,994	21,554	17,886	23,254	20,966
Taxation Adjustments	-20,297	-20,963	-21,866	-22,234	-24,324	-23,684
Adjusted NOPAT	114,872	138,029	152,248	173,197	185,909	211,169
<b>Return on Capital (ROC)</b>	<b>13.93%</b>	<b>14.94%</b>	<b>14.49%</b>	<b>14.59%</b>	<b>13.99%</b>	<b>14.13%</b>
<b>WACC (see appendix 5)</b>	<b>7.85%</b>	<b>7.85%</b>	<b>7.85%</b>	<b>7.85%</b>	<b>7.85%</b>	<b>7.85%</b>
<b>EVA (destroyed)</b>	<b>6.08%</b>	<b>7.09%</b>	<b>6.64%</b>	<b>6.74%</b>	<b>6.14%</b>	<b>6.28%</b>
<b>Average ROC 1998 to 2003</b>		<b>14.35%</b>				
<b>WACC</b>		<b>7.85%</b>				
<b>Average EVA 1998 to 2003</b>		<b>6.50%</b>				

*Table 6.2 Calculation of EVA for the years 1998 to 2003*

*(Information extracted from the annual reports of Sage plc from 1998 to 2003)*

Sage plc spends on average £50 million per year on Research and Developments (R & D). This is written off every year against profits. These

expenses are incurred for the development of new products and upgrade of existing products to meet changing markets. EVA suggests that these expenses should be treated as an asset and not expensed. As a result the yearly expenses have been added back to NOPAT and the cumulative expenses have been added to Shareholders Equity.

Minority interest refers to the minority shareholder in a subsidiary that was deducted in the annual report and now needs to be added back in order to obtain total capital in the company.

The total adjusted capital is made up of the Shareholders Equity, Minority interest, adjustments for past R & D expenses and total debt. No provision has been made for goodwill as the company does not write off goodwill but capitalises and includes it in the Shareholders Equity.

Movements in provisions during the year have been taken into account as this would represent the timing differences over the period. EVA states that provision for expenses should not be taken into account and this has been added back to NOPAT. As these adjustments would affect taxation, an adjustment has been made on the expenses which are now reversed in order to obtain the adjusted NOPAT.

The Return on Capital is expressed as a percentage of the adjusted NOPAT over the adjusted Total Capital. This percentage is the actual return received by the shareholders on the current performance of the company.

WACC as stated above is detailed in Appendix 4. WACC is the weighted average cost of capital used in the business. The weighting on the interest rate is in proportion of the type of capital used in Total Capital Employed. This percentage represents the return that shareholders require for their investment in the business.

Any return below WACC would indicate that shareholders are losing money and a return higher than WACC would imply that they are gaining. The

difference between WACC and the return on capital would indicate whether value was added or diminished. A positive value would reflect that shareholders are gaining value and this can be converted to monetary terms by multiplying it to the adjusted total capital. A negative return would reflect that value was diminished.

EVA has been created over the period 1998 to 2003. The total return on capital per year averages 14.35% and EVA over the same period averages 6.5%. The highest ROC on capital over this period was 14.94% in 1999 and the lowest was 13.9 % in 1998.

The calculation above concludes that over the period 1998 to 2003, Sage plc had created shareholder value.

#### 6.3.4 Revenue and NOPAT

The revenue and NOPAT for the years 1998 to 2003 has been extracted from the annual reports of the company. The revenue is compared to NOPAT and each item is compared to the previous year's figures to determine growth in revenue and NOPAT.

**Table of Revenue and NOPAT for the years 1998 to 2003**

	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
	<b>£ '000</b>					
Revenue	407,553	447,664	494,226	549,553	599,425	660,112
NOPAT	77,511	89,114	101,226	115,884	134,225	155,474
NOPAT return on Revenue	19.02%	19.91%	20.48%	21.09%	22.39%	23.55%
NOPAT year on year increase	13.56%	14.97%	13.59%	14.48%	15.83%	15.83%
Revenue year on year increase	9.87%	9.84%	10.40%	11.19%	9.08%	10.12%
<b>Summary 1998 to 2003</b>						
<b>NOPAT return on Revenue</b>	<b>21.32%</b>					
<b>NOPAT year on year increase</b>	<b>14.71%</b>					
<b>Revenue year on year increase</b>	<b>10.08%</b>					

*Table 6.3: Revenue and NOPAT for the years 1998 to 2003*

*(Information extracted from the annual reports of Sage plc from 1998 to 2003)*

The company has maintained an average 10 per cent increase in revenue year on a year-on-year basis between 1998 and 2003. Over the corresponding period NOPAT had also increased by an average 14.71% year-on-year basis.

The company's return of NOPAT margins averaged 21.32% over the period under review. The highest margin of 23.55% was achieved in 2003 and the lowest was 19.02% in 1998.

The company has achieved growth in revenues and NOPAT over the period 1998 to 2003.

#### 6.4 Conclusion

Sage plc's strategy of value creation has been integrated into the daily management of the company. Acquisitions were identified as the most appropriate way to create growth in revenues and profits thereby creating value for the company and its shareholders. Sage plc focused on growth through acquisitions rather than organically. They adopted this strategy to gain a strong market position and increase their customer base. Acquisitions allowed Sage plc to realise its objective more efficiently thereby allowing it to increase its financial and operational performance.

The valuation methods listed above was reviewed in the literature review. Various authors have discussed each valuation method in detail listing both their advantages and disadvantages. Some measures have been adjusted to overcome the short comings whilst others resulted from the modernisation of the traditional measures. Various consulting companies have developed and patented their own measures for value creation

Arnold (2002) argues that EVA, like the generic EP, has the virtue of being based on familiar accounting concepts and is arguably more accurate than taking ordinary accounting figures and measurements. Despite what some critics have said about EVA being time consuming and costly in calculating, it remains one of the more widely used modern value metrics.

After weighing the pros and cons of each measure, it has been concluded that EVA is the most appropriate measure for value creation. It can be accurately used and applied in value based management.

An analysis was undertaken of the acquisitions made by Sage plc between 1991 and 2003 and it was revealed that over £1.22 billion was spent. The bulk of which was spent between 1998 and 2003 (£1.12 billion). The ROC over the period 1998 to 2003 averaged 14.35% per annum while the expected WACC was 7.85% per annum. This resulted in an average EVA over the period 1998 to 2003 of 6.5% per year. Table 6.3 revealed that the average NOPAT return on Revenue over the period 1998 to 2003 was 21.32% with an average year on year increase in revenue of 10.08% per annum. These figures conclude that Sage plc has achieved growth over the period 1998 to 2003 and has created value for its shareholders.

## 7. CHAPTER SEVEN - Conclusion and Recommendations

In finalizing the study on shareholder value creation the following conclusions were derived from research acquired. The subject of creating and measuring shareholder value has gained much attention in many companies worldwide. This has resulted in management choosing and executing strategies more efficiently in order to deliver benefits derived from acquiring complementary products, access to new markets or distribution channels, acquire additional mass and benefit from economies of scale, and acquire technology to compliment or replace the currently used one. Other objectives of acquisitions and integration of ventures include substituting research and product/service development, supplementing the existing product and business portfolio with the best available technology, entering emerging markets with speed and to acquire and retain a talented and motivated workforce. Value creation over a specific period of time can be achieved by various methods and needs to be accurately measured to ensure that value is indeed created.

Social scientists predict that globalization will deepen the economical interdependence of countries and simultaneously cause unrestricted mega competition. The Sage Group plc -- a listed top 100 company (FTSE) on the London Stock Exchange--embarked on a long-term strategy to increase shareholder value through acquisitions that has rapidly intensified its strategic advantage within the global marketplace. This study has identified the manner in which Sage plc executed its finance strategy and undertook to measure the value created over the period to assess the extent of the tactical profitability.

The empirical study has shown that management is in every respect aware of the principles of the term 'shareholder value creation' and its importance on the company's decision making process. The study has also identified that shareholder value creation is an explicitly communicated corporate strategy and the performance of senior management measured by value creation.

Various VBM metrics was investigated for the measurement of shareholder value creation and it was concluded that EVA is the most appropriate measure. It was further identified that this measure was used at Sage plc to measure value creation and verify the performance of senior management. Management bonuses and rewards were based on EVA.

The research issue was answered by first setting down a background on shareholder value creation. Various methods of creating shareholder value were identified and this was tied to Sage plc. Sage plc's acquisitions program had accounted for over 85% of the revenue growth over the 2002 and 2003 financial years. The company focussed on acquisitions rather than organic growth to increase revenues. Organic growth was achieved thorough the cross selling of products to a new customer base as a direct result of the acquisitions made.

When a company creates shareholder value, it needs to be measured to ensure that value is indeed being created. This answered the second part of the research issue whether value at Sage plc was created or destroyed. Various methods of measuring value creation were identified. These measures were classified into two groups; namely traditional measures and modern measures. The measures in each group was compared and analysed.

The traditional measures fell short in that did not take into account various accounting entries and adjustments and that the measures, although yielded profitability and accounting ratios, failed to reflect any economic values. The more modern measures were compared and although each had its advantages and disadvantages, it was concluded that EVA was the most appropriate measure. Despite it being long to calculate, its results did take all the necessary adjustments into consideration and could easily be compared to the cost of capital to determine if value was created or destroyed.

At Sage plc, financial figures were extracted for the period 1998 to 2003 as an amount of £1.12 billion (Table 6.1) was spent on acquisitions. Various

adjustments was made to the NOPAT to calculate the EVA and the results has shown that EVA was created over this period. The total return on capital per year averaged to 14.35% (table 6.2) and the weighted average cost of capital was calculated as 7.85% (appendix 4). The shareholders required a return of 7.85% on their capital but the company has shown a return of an average of 14.35 % over this period. The EVA over this period was 6.5%.

Total revenues and NOPAT was detailed in table 6.3 for the period 1998 to 2003. Here it was shown that over these period revenues increased by an average 10.08% year on year and NOPAT had increased by 14.71% year on year. The company has maintained a steady growth over this period in both revenues and profits. It was not surprising to find that EVA was created over the similar period.

The calculations for EVA and growth has shown that over the period 1998 to 2003, Sage plc had spent £1.12 billion on acquisitions and has achieved growth and created value for its shareholders. This has answered the research issue whether Sage plc has created value through it acquisitions program.

The research has shown that acquisitions can deliver short term results if targeted and implemented properly. They can give a company access to new products, markets and territories that would normally be too expensive or time consuming to develop internally

The study has shown that Sage plc uses acquisitions to create growth and continue to maintain this with a strong R & D department. They have used the newly acquired customer base to cross sell and up sell products thereby increasing value. They have addressed the issue of limits to growth when the acquisitions program comes to an end.

Creating and measuring shareholder value is a broad subject. This research undertook a case study on Sage plc. The research was restricted to Sage plc and taken from a company perspective. It would be interesting to look at this

issue in general and from an expanded perspective such as the shareholder, analyst or stock market. It would be interesting to see how companies in general create value and how this value is measured. Finally it would be interesting to compare the different value metrics and the reasons for choosing it.

In today's era driven by value creation, companies like Sage plc accelerate capacity building by integrating capabilities, knowledge management and emerging technology through synergistic and venture acquisitions that deliver immediate product/service development. While taking over established corporations can help reduce costs through consolidating duplicate operations, increase revenues and broaden an existing customer base as well as enhance product portfolio, create opportunities to enter new markets and acquire and retain talented and motivated people, the question is whether this formula can be sustained in the changing business environment?

The solution to operating in a seamless business environment lies in exploring the evolutionary process of our thinking over the past decades. Ultimately management should re-conceive the role of the firm to not only provide opportunities to expand strategic advantages for its shareholders but also to accelerate capability building of people within the company. According to Hammonds (Internet Ref 12) —“the modern business organization is nearing the end of its useful life.” The sentiment among many influential strategists is that big businesses today believe that size is a precondition to success and continue to get bigger to stay in the game. This logic is however flawed and has been believed to be so since at least 1931 when a Frenchman named Robert Gibrat wrote *Inégalités Economiques*. The basic premise was that —“there was no relationship between a firm's size and its expected growth rate.” (Internet Ref 12). Later research however refined Gibrat's observation stating that —“it wasn't that size had no bearing on growth .. big companies were more likely than smaller ones to survive over time ... but having survived, the biggest grew the slowest.” (Internet Ref 12).

The question in terms of this study is whether giant companies such as Sage plc are doomed to fail at addressing complex problems associated with perpetual renewal in an attempt to keep abreast of customers who swiftly outgrow entry-level offerings. Based on the information acquired from interviewing key personnel at Sage plc, and general research it transpires that company's today overlook the importance of investing in a coherent innovation strategy, which might offer significant alternatives to engaging in perpetual acquisitions.

Hamel (Internet Ref 12) proposes that the solution lies in a company forming an open market to explore new ideas, capital and talent by —distributing the capability for innovation to every employee in every corner of the business.” The general consensus among strategists is that innovation can occur within big companies, but only if the company does away with hierarchy. The purpose of exploring innovation in the information economy is to identify a smarter way of drawing a parallel between the relationship of expanding purely through acquisition and shared innovation that might instead uncover completely different technology to deliver a much faster and more affordable product or service to an ever-increasing individualized consumer-base.

## **8. APPENDIX 1 – The Interview Questionnaire**

As an introduction, all interviewees were asked to introduce themselves and provide some basic background information on themselves such as educational qualification, experience, current position within Sage plc and the number years employed with the company.

### ***Creating Shareholder Value***

1. Sage's corporate policy is to drive growth through acquisitions. Do you consider this strategy to be an appropriate method for growth?
2. What are the possible reasons for choosing this particular strategy?
3. How successful is this strategy?
4. Are there other possible strategies for growth that the company could have chosen? Would you consider these alternate strategies as more effective than the acquisitions strategy?
5. Is shareholder value creation an explicitly communicated key corporate objective?
6. What can the company do to increase shareholder value in the long run perspective?
7. Does the company apply any value based management principles?

### ***Measuring Shareholder Valuation***

6. What methods are currently used to measure shareholder value creation or how does the company measure whether its acquisitions program is indeed creating value?
7. What are the reasons for choosing this type of measurement?
8. Was this method developed internally or modified to suit the company?
9. What are your views about the strengths and weaknesses of this chosen performance measurement?
10. Do you personally consider this as an appropriate measurement and if not what measurement would you have chosen and why?

11. Does the company regularly test the validity of the chosen performance indicators as predictors of future performance and adjust the indicators as and when necessary?

### ***Mergers and Acquisitions***

4. It is generally said that the target companies benefit more from mergers and acquisitions. What are comments on this?
5. Sage acquires companies to drive growth. What key factors does the company look for when acquiring and a target?
6. Who is in charge of the acquisitions program?
7. Does the company have a specific model for identifying target companies?

## 9. APPENDIX 2 – Calculation of TSR

The Value Based Management Resource Centre (internet ref 3) suggests the following formula be used for the calculation of total shareholder returns.

Total Shareholders Returns (TSR) represents the change in capital value of a listed company shares over a given period plus any dividends received during this period, expressed as a plus or minus percentage of the opening value.

Due to its nature TSR can not be calculated at divisional levels and can not be computed for privately held companies.

TSR can be easily compared from company to company and benchmarked against industry or market returns without having to worry about size bias.

TSR is expressed as a percentage

### **Formula**

TSR =

$$\frac{\text{Share price end of period} - \text{share price beginning of period} + \text{dividends during the period}}{\text{Share price beginning of period}}$$

## 10. APPENDIX 3 – Calculation of EVA

$$\text{EVA} = \text{NOPAT(a)} - \text{C\%}(\text{TC(a)})$$

Where

NOPAT(a) is net operating profit after taxes after adjustments

C% is the percentage of the cost of capital (WACC)

TC(a) is the total capital after adjustments

EVA as a percentage can be calculated as the difference between the return of the adjusted NOPAT over the adjusted TC and the WACC

$$\text{EVA \%} = \frac{\text{NOPAT(a)}}{\text{TC(a)}} - \text{WACC}$$

A positive percentage will indicate value created and a negative percentage will indicate value destroyed.

There are various adjustments that needed to be made to NOPAT and TC as indicated by Stern Stewart and Company. The major adjustments include Goodwill, R&D expenses, minority shareholders interest and movement in provisions. Copeland et al (2000) details all the possible adjustments that can be taken into account in the calculation of EVA.

## 11. APPENDIX 4 – Calculation of Sage plc's WACC

The weighted average cost of capital (WACC) is the discount rate used in value based management and project appraisal. The WACC is calculated by weighting the cost of debt and equity in proportion to their contribution to the company's total capital employed.

$$\text{WACC} = r_E (E/TD) + r_D(1-t)(D/TD)$$

where,

$r_E$ : return on equity

E: equity

$r_D$ : bond returns (which are slightly different for the two divisions)

t: tax rate (expressed as a decimal; 31% = 0.31)

D: debt

TD: total debit (equity plus debt)

### Calculation of $r_E$ (Return on Equity)

The CAPM model says that the return to investors (and to the corporation,  $r_E$ ) has to be equal to:

- the risk-free rate;
- PLUS a premium for stocks as a whole that is higher than the risk-free rate. This market return premium is ( $r_M - r_f$ ); and
- the market return should be multiplied by the risk factor for the individual company, termed the "beta of the corporation" ( $\beta_c$ )

Expressed as a formula, it's:

$$r_E = r_f + \beta_c(r_m - r_f)$$

Where,

$r_E$  is the company's expected return on capital

$r_f$  is the risk-free return rate, the rate for gilts in the U.K.

$r_m$  is the expected return on the entire market of all investments.

Most measures in the U.K. use the FTSE 100 – the 100 largest companies on the London Stock Exchange.  $\beta_c$  is the company's Beta, based on its covariance with the market.

$r_f$  in the U.K. is about 4.55% according to the Wall Street Journal quotes (internet ref 4)

Sept. 2006 maturity, 4.55%

Dec. 2009: 4.55%

Sept. 2015: 4.57%

Mar. 2036: 4.47%

$r_m$  in the U.K. has historically been 7.6%, according to Motley Fool U.K., a well-known investment company (internet ref 5).

According to Value Line, a UK investment site (internet ref 6) the beta ( $\beta_c$ ) for Sage plc is 1.25 providing the following  $r_E$ :

$$r_E = 4.55\% + (1.25)(7.6\% - 4.55\%)$$
$$8.36\%$$

### **Calculation of WACC**

$r_E$	=	8.36% (calculated above)
$r_D$	=	7.95% ( Sage plc annual report 2003)
E	=	£747 million ( Sage plc annual report 2003)
D	=	£170 million ( Sage plc annual report 2003)
TD	=	£917 million ( Sage plc annual report 2003)
T	=	30% (0.30) ( Sage plc annual report 2003)

$$WACC = r_E (E/TD) + r_D(1-t)(D/VTD)$$

$$\mathbf{WACC = 7.85\%}$$

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