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5 The role of book entries in income smoothing and big baths

5.1 Introduction

When companies come under increasing pressure during economic turbulence, managers usually turn to the accounting department to improve the bottom line and thereby change the information content of the company. Accounting, though very flexible, does not seem to be able to supply management with useful information under these circumstances (Hope and Hope 1996). Information for decision-making is rather complex because there are different kinds of decision makers, such as investors (since they need to know how profitable and stable a company is before investing), managers (they need to know the financial position of a company), banks and lenders (they need to know that the company will be able to repay any loan).

In this chapter the techniques of income smoothing and big baths (which originated from book entries), for changing the information portrayed in financial statements, are discussed. In particular, the differences between these two concepts are considered and examples of each are presented; the reasons why these techniques are employed in practice are discussed and applications of income smoothing through the use of book entries are considered. A summary concludes this chapter.

An important technique sometimes applied in a company is *earnings management,* which may be defined as “a purposeful intervention by management in the earnings determination process, usually to satisfy selfish objectives” (Wild *et al.* 2001:120). Earnings management is used by managers to manipulate information, for example, to smooth the bottom line and thereby build investors’ confidence. However, such actions may affect the information provided in the financial statements quite considerably. There are numerous ways in which book entries can be utilised to manage earnings. In

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extreme cases book entries may be used to commit fraud while in other cases book entries may be used as a strategic tool in earnings management. In applying earnings management, company managers know the goals they are pursuing – usually to the benefit of the company, but not always to the benefit of other stakeholders.

The practice of earnings management is facilitated in the flexibility of GAAP as well as the many possible interpretations of some of the principles put forward in GAAP. It is mainly this flexibility that gives rise to book entry accounting's diversity. When interpretation of a principle is very flexible, the integrity of the information reported on in the financial statements becomes rather vulnerable. Matching and conservatism (discussed in Chapter 4) may also lead to earnings management. According to Getschow (1986), the Union Carbide Corporation increased their first quarter profit without adding cash by applying more liberal accounting methods for depreciation, investment tax credits and interest cost incurred during construction. They insisted these were done to present more realistic financial statements and to make their accounts more compatible with that of other chemical producers. Analysts and auditors called this "accounting magic", yet all this was done within the rules of GAAP. Studies have revealed that company managers willfully manipulate reported profits to fit their own intentions by selecting certain accounting policies, changing accounting estimates, and manipulating accruals (Yoon and Miller 2002). Of course, as soon as profits are manipulated, their integrity is in the balance, especially if the manipulation is based on personal intentions, incentive schemes or both.

Analysts expect companies to meet forecasts and not to deviate from these, not even by one cent, particularly if it is a reliable company. Stock market analysts and investors seem to assume the worst when such a forecast is missed — even by as small an amount as one cent (Collingwood 2001). These surprises may be negative or positive, although it appears that negative surprises have much less influence on the markets because "investors will not be much more disturbed by a 30% drop in earnings than by

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a 20% drop" (Fridson and Alvarez 2002:11). Hence, negative surprises seem to be tolerated by the market more than positive surprises. Of course, listed companies want to impress the stock markets and attempt to follow the stock market sentiment of having no "surprises" in store when reporting their results.

It appears that two sentiments prevail when it comes to earnings management. In the first case stakeholders seem to regard earnings management as fraud, whereas in the second case stakeholders judge such action to be company management using their discretion. "In contrast to interpreting smoothing as an abuse of flexibility in reporting, we argue that rational managers, who try to maximize the value of their firms, may be using their reporting discretion, within the confines of acceptable accounting and legal requirements, to maximize the value of the companies they manage" (Kirschenheiter and Melumad 2002). Therefore, it all depends on the company's management. If management wants to reach certain strategic goals to the detriment of the outside stakeholders, it would possibly be seen as fraud and certainly as self beneficial. If information portrayed in the financial statements is changed to the detriment of outside stakeholders, the integrity of the information may be impaired.

Hunt, Moyer and Shevlin (1997) examined whether management discretion reflected in income smoothing is associated with equity value or not. The results from their study indicated that lower earnings volatility arising from both accrual accounting practices and accrual management is associated with higher market value of equity. When management's personal discretion results in the lowering of earnings volatility, the integrity of the information portrayed in the financial statements may be influenced.

Playing the 'financial numbers game', as earnings management is sometimes called, may have a definite negative effect when discovered. "Using creative accounting practices, management can alter impressions about their firm's business performance. Assessments of corporate earning power can be rendered inaccurate, leading to

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inappropriate prices for debt and equity securities. When resulting misstatements are discovered, the markets can be unforgiving, causing precipitous declines in debt and equity prices" (Mulford and Comiskey 2002:8). Thus, markets may be very unforgiving when a company is caught red-handed, and future trust is likely to be influenced by this. When future trust is influenced because of book entries, the integrity of the information in the financial statements may be compromised.

5.2 Big baths and income smoothing

A *big bath* is defined as a process undertaken by a company when the latter suffers a quarterly profit decline too large to wipe out through discretionary items. Under such circumstances the company may decide to 'take a big bath' in an attempt to maximise the reported setback. The idea is to portray a larger loss in the current quarter followed by a larger profit during the next quarter. This is achieved by incorporating future expenses into the current quarter instead of the next quarter. The effect is that management is able to report larger (positive) earnings in the following period (Fridson and Alvarez 2002). The 'big bath' phenomenon is really a means of getting rid of old baggage, for instance, goodwill.

Smoothing of income is a way of removing volatility in earnings by levelling off the earnings peaks over a number of years and raising the valleys over the same period. Steps are therefore taken to reduce and 'store' profits during good years for use during slower years (Mulford and Comiskey 2002). Income smoothing may be successfully applied, without questions from the stakeholders, either when investors are 'naive' and ignore management's ability to manipulate earnings, or 'sophisticated' and correctly infer management's disclosure strategy (Kirschenheiter and Melumad 2002). Investors may be harmed by income smoothing if it is used as a strategic tool by management. Some investors do not ignore management's ability to smooth, they are simply uninformed or ignorant. Both the application of a big bath and the smoothing of income is generically referred to as *earnings management* or creative accounting. Information

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based on earnings management and creative accounting may result in information with a different integrity than information resulting from real transactions.

5.3 Big baths versus income smoothing

Income smoothing is a practice that is rather common and can stretch over a period of several years whereas the 'big baths' phenomenon is more of a once off practice since it is based on the unusual or nonrecurring nature of a transaction. In a way, income smoothing and big baths are, therefore, two opposite techniques – at least as far as the frequency of application is concerned.

Berton (2000) reports that a SEC chairman, Arthur Levitt, at some stage warned auditors and their clients to avoid abuses of earnings management. The areas he focussed on were: 1. the big bath; 2. merger magic; 3. cookie jar reserves; 4. materiality abuse; and 5. revenue recognition. Earnings management takes on various forms but occurs, without fail, via book entries. A book entry is therefore a powerful tool with which a company may stretch accounting principles to their utmost limit and thereby compromise the integrity of any information based on such entries.

The following section gives an example of the application of a 'big bath':

Example 5.1: A big bath scenario

Suppose company A knows that it is going to miss the stock markets forecast for the current quarter. Subsequently, management decides to increase their loss from R20 000 to R50 000 as follows:

(1) They write off an amount of R10 000 for goodwill that is still on their balance sheet after an unsuccessful acquisition.
(2) They accelerate their depreciation resulting in an additional loss of R15 000.
(3) They write off an R5 000 outmoded asset.

Steps (1) - (3) above enable the company to show an additional R30 000 profit in the next reporting period, helping investors to believe that the company bounced back. Note that company A cleverly managed to embark on a win-win situation as follows:

(1) Although the loss of the current period has increased from R20 000 to R50 000, chances are that this may not have much effect on investors' sentiment, since stakeholders seem to tolerate negative market surprises better than positive surprises (see section 5.1 above).

(2) The profit for the next period is increased.

The big bath technique described above may be captured in the form of a graph:

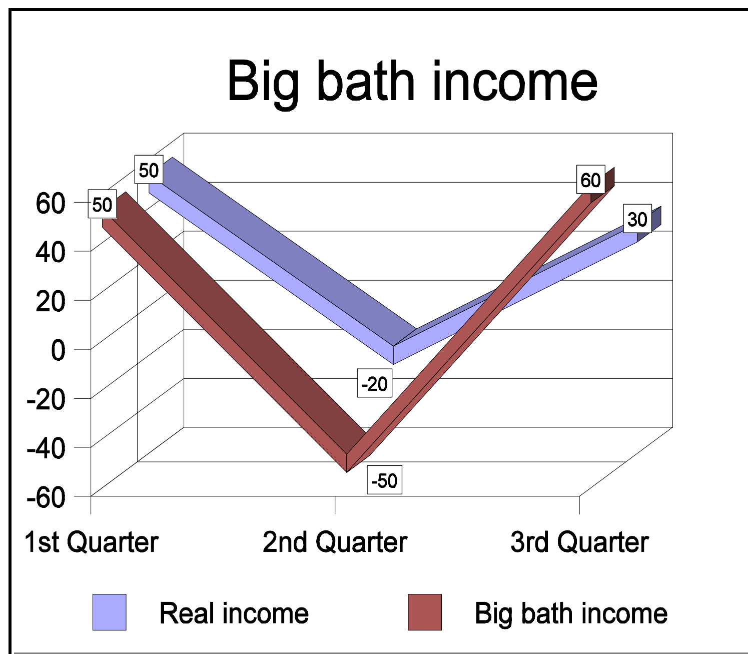

Figure 5.1 An illustration of a big bath

Example 5.2: An income smoothing scenario

Suppose management of company B decide that they should smooth out all volatility

from their reported profits to show a more consistent picture for the period 1997 to 2002:

(1) In 1997 they decrease their profit from R80 000 to R30 000 and hide the reserve (expecting a loss in 1998) to help the company show a profit of R10 000 instead of a loss of R40 000 in 1998.

(2) In 1999 (R100 000 profit decreased to R50 000) they carry on with this trend because they expect a loss in 2000 (a loss of R30 000 decreased to show a profit of R20 000).

(3) In 2001 they project a loss of R50 000 in 2002. Hence they accelerate their depreciation charge which results in an additional R25 000 expense and they write off R35 000 purchased in-process research and development. The result is to drop the R90 000 profit in the current year (i.e. 2001) to R30 000 and the expected loss of R50 000 in 2002 turns into an R10 000 profit. Although there is still a decline in the profit, it is not to the detriment of the company.

The scenario outlined in Example 5.2 is represented below in graph from:

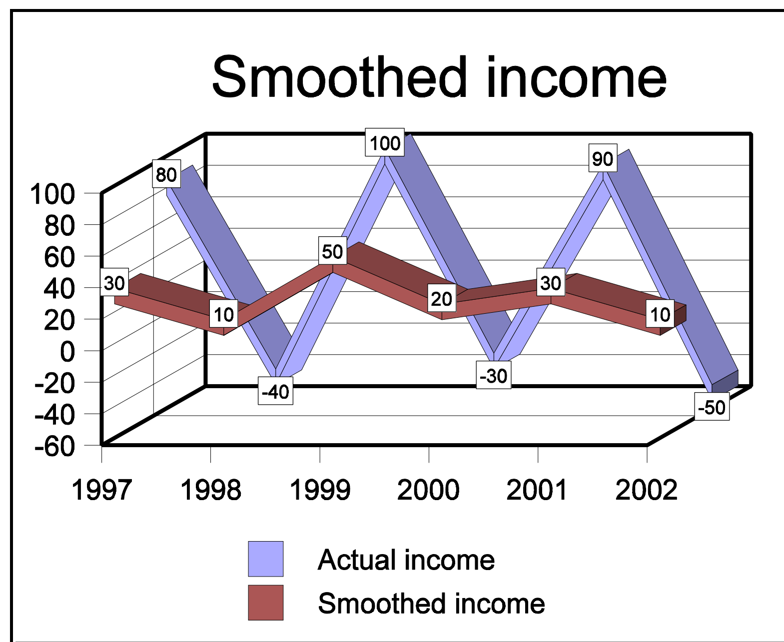

Figure 5.2 An illustration of smoothed income

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5.4 Why do companies make use of earnings management?

A statement from the Financial Times of 26 September 1991 clearly illustrates that book entries are being used to juggle profits: “Profits are not necessarily a reliable measure of a company’s performance. Companies can adjust profits to suit their own purposes by using provisions” (Ellis and Williams 1993:169). There are numerous reasons for managers to manage earnings; most of these have to do with the stock market and the increase of a company’s value. Hence, earnings management may also be used as a strategic tool by managers of companies. Specific reasons for applying earnings management in the form of the smoothing of income or taking a big bath is presented in sections 5.4.1 and 5.4.2 below.

A reliable way to detect earnings management is to compare a company’s reported operating profit with the cash flow. If the operating profit is healthy but there is a net cash outflow, the company is making use of creative accounting (Ellis and Williams 1993). If a company has an ever increasing operating profit, there cannot be a net cash outflow all the time, hence the company is certainly manipulating their profits through the use of book entries. A book entry is one way of differentiating between cash and profit. Companies cannot create cash but they can enhance their profits. Enhancing of profits takes place through the use of book entries.

A concept closely related to earnings management, called *gaming*, is the withholding of new investments to a company. The Du Pont company (Johnson and Kaplan 1991) started to calculate their return on investment on gross earnings and investments (i.e. before depreciation is taken into account) and not on net earnings (i.e. after depreciation has been subtracted). Du Pont started to follow this practice after they decentralised their multi-divisional structure in 1920. Managers who are the *owners* of a company will most certainly not partake in gaming behaviour, that is withholding new investment, but managers who are also *employees* and have less self-interest in the company may decide to partake in gaming behaviour. When withholding new investment and return

on investment figures are calculated on the net of earnings and investment, the rate of return on investment will rise. The only way to reduce the likelihood of gaming behaviour is to measure earnings and investments without taking any deductions for depreciation into account (Johnson and Kaplan 1991). Nowadays such gaming behaviour may be viewed as earnings management. If it is taken one step further and companies accelerate their depreciation rate then such action might be viewed as conservatism, or as a way whereby earnings could be manipulated. In fact, the dividing line between conservatism and the manipulation of earnings appears to be rather thin. Both conservatism and the manipulation of earnings take place through the use of book entries and may therefore influence the integrity of the information provided in the financial statements.

5.4.1 Reasons for income smoothing

There are various reasons for income smoothing, some of which facilitate decision-making, while others are less useful in this regard. Smoothing may be associated with the size of the company, the existence of bonus incentive schemes, and a deviation of actual earnings from forecasted expectations (Yoon and Miller 2002). Management may be more inclined to manipulate income if these incentives are based on a company's profits.

Below are some of the reasons for applying income smoothing:

(1) Reported income is decreased or increased appropriately so as to reduce its overall *volatility* (Wild *et al.* 2001).

(2) Income smoothing may "convince potential debt holders that earnings have lower *volatility*, and hence represent a reduced risk. Since debt can be raised at lower cost, smoothing increases the expected cashflow to shareholders" (Kirschenheiter and Melumad 2002).

(3) Smoothing may help to meet the analyst's expectations of a *steady* rise in earnings,

even at the cost of not delivering the highest possible return to shareholders (Collingwood 2001).

(4) Owners feel more confident towards a company that reports *stable* earnings (Hepworth 1953).

(5) A relatively *stable* level of periodic income may improve management's relations with investors and employees alike (Hepworth 1953).

(6) Income smoothing may maximise the *value of a company* (Kirschenheiter and Melumad 2002).

(7) External demand to increase the *company's stock price* may be achieved by smoothing (Kirschenheiter and Melumad 2002).

(8) Smoother income levels permit higher *dividend rates* (Gordon 1964).

(9) Smoothing may increase a *manager's compensation* if tied to reported earnings (Wild *et al.* 2001).

(10) The allocation of *government subsidies* may depend on the successful application of income smoothing (Wild *et al.* 2001).

(11) Companies smooth their profit levels to lower their *tax burden* (Getschow 1986).

The above items may be classified into categories concerned with lowering the volatility of a company's earnings (or stabilising earnings), increasing the value, dividends and stock price of a company and aspects directly related to money (i.e. increase manager's compensation, increase subsidies and decrease company tax). It follows that the actions underlying all these items aim to change the information content of the financial statements, thereby influencing the integrity of the information.

5.4.2 Reasons for applying a big bath

Next, some reasons for applying a big bath are given below:

(1) A big bath may be applied when a company believes that the *market sentiment* would not be influenced when earnings drop by for instance, 10% more than

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expected — it becomes easy to get rid of old baggage. This sentiment is shared by Fridson and Alvarez (2002:11): "... investors will not be much more disturbed by a 30% drop in earnings than by a 20% drop. (Part omitted). It may also be a convenient time to recognize long-run losses in the value of assets such as outmoded production facilities and goodwill created in unsuccessful acquisitions of the past".

(2) Because of *Wall Street's response*, some companies believe that if they were going to miss the Wall Street forecast, they might as well fall short of expectations (Collingwood 2001). Companies falling short of expectations take the opportunity to write off failed investments or bad debts, or sell unwanted assets at a loss.

(3) Companies make use of big baths to *clear their balance sheet* by removing large expenses from the balance sheet during a particular financial year. The company then miraculously 'revives' the following financial year when estimates of charges are lower and higher earnings emerge in future (Berton 2000; Collingwood 2001). Investors might incorrectly believe that the company had a big turnaround if they do not have access to the correct information.

(4) A lower basis of *comparative figures* from subsequent quarters is established by introducing a big bath (Collingwood 2001).

The actions implied by each of the four items above may aim to yet again change the information in the company's financial statements, influencing the integrity of such information.

5.5 Applying income smoothing through book entries

A book entry is the main tool whereby income smoothing is achieved. Many different kinds of book entries may be used:

(1) *The depreciation and amortisation book entry*: Mulford and Comiskey (2002) claim that depreciation is one of the most popular areas where smoothing is applied. With

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depreciation the company can change the method of depreciation and/or change the useful lives of fixed assets. In the case of goodwill a company may change the period of amortisation as well. If the method of depreciation or amortisation is changed, it may be seen as conservatism, the directors might have decided to look at other companies in the same market segment and then adjusted their policy accordingly.

(2) *The allowance book entry*: Mulford and Comiskey (2002) report that allowances are also popular mechanisms to employ. These include the allowance for uncollectible accounts, loans receivable, warranty obligations and deferred taxation. Most of these allowances are subjective in nature and do not enjoy the same integrity as real transactions.

(3) *The under or over provision book entry*: Kirschenheiter and Melumad (2002) present the following viewpoint "If the news is 'good', the manager smooths earnings, with the amount of smoothing depending on the level of cashflows observed. He either over-reports or partially under-reports for slightly good news, and gradually increases his under-reporting as the news gets better, until he is under-reporting the maximum amount for sufficiently good news. This result holds both when investors are 'naive' and ignore management's ability to manipulate earnings, or 'sophisticated' and correctly infer management's disclosure strategy". Under- or over-reporting of profits may influence the integrity of information quite considerably. The information the investor will be using is influenced by book entries and is furthermore based on the subjective view of a manager.

(4) *The reserve book entry*: As reported above, income smoothing involves hiding through creative reserves or "earnings banks" a portion of earnings during profitable years, and then reporting these earnings in less profitable years (Wild *et al.* 2001). Hence, the volatility of earnings may be removed with the use of book entries whereby investor confidence is boosted.

(5) *The classification book entry*: This takes place when expenses are being reported together with extraordinary and nonrecurring items that are usually given less

importance by analysts (Wild *et al.* 2001). If an expense that is usually reported above the line, suddenly gets reported below the line, analysts will not be influenced unless they realise what has happened.

(6) *The allocation book entry*: This category groups together the assignment of costs of depreciable assets to manufactured inventories, period expenses, and amounts reported on year-end balance sheets. Costs of inventories and supplies are assigned to period expenses and closing inventories (Thomas 1975).

(7) *The amortisation book entry*: Amortisation of prepaid insurance, pensions, leases and goodwill fall under this category (Thomas 1975).

(8) *The write-down book entry*: This book entry covers the writing down of inventories, standby equipment and marketable securities to market value, thereby charging portions of their cost against current income (Thomas 1975).

(9) *The deferred book entry*: Tax and other deferrals are covered by this book entry (Thomas 1975).

(10) *The channel stuffing book entry*: Channel stuffing is performed when goods are sold to customers who did not order them or do not need them, in which case special discounts are granted (Collingwood 2001).

(11) *The matching book entry*: This book entry has to do with the timing of transactions, that is, whether a transaction should be recorded during the current period or the next. This is a managerial decision rather than an accounting choice. This particular book entry is the most direct and influential method for applying income smoothing (Wolk, Francis and Tearney 1992).

(12) *The classification book entry*: The question that needs to be asked in this case is whether a transaction should be classified as operating income or nonoperating income (Wolk *et al*. 1992).

5.6 Book entry accounting and its effect on information

From the above discussion it follows that book entries are used to manipulate earnings in various ways. The information portrayed in the financial statements of companies

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must be fair and reliable. According to the Trueblood Committee the most basic objective of financial statements is to provide information on the basis of which economic decisions will be made (Wolk *et al*. 1992). The information provided in the financial statements should be transparent and relevant to the specific decision maker. Brimson (2002:36–40) wrote an article entitled "Accounting charlatanism of information fog?" in which an analysis of the downfall of Enron is presented. This case study highlights the current deficiency of accounting to provide financial transparency. Stakeholders inside as well outside Enron were caught by surprise – the available financial information did not supply any warning signals in advance.

An important primary focus of financial reporting is presenting information about a company's performance provided by measures of earnings and their components (Kirschenheiter and Melumad 2002). When a company smooths its earnings, the information about a company's performance is influenced. Earnings quality should be measured in terms of its usefulness to the readers of financial statements in their decision-making. Earnings that do not portray the real picture may not be useful to stakeholders who need to make decisions on the basis of the information provided. Managers use their discretion in income smoothing, hence communicating their private information in the process. The result is subjective information, leading to equally subjective decision-making.

Two more properties of information provided in the financial statements are reliability and relevance. *Reliability* is defined by Kirschenheiter and Melumad (1997:50) as "the *quality* of information that assures that information is reasonably free from error and bias and faithfully represents what it purports to present". Reliability implies something about the usefulness of the information but not about the decision-making effectiveness. When tampering (smoothing) occurs, the information may not be free from bias and might not be reliable. *Relevance* poses another problem when income smoothing exists. *Relevance* is defined by Kirschenheiter and Melumad (1997:50) as the: "*capacity* of

information to make a difference in a decision by helping users to form predictions about the outcomes of past, present, and future events or to confirm or correct prior expectations". However, since information is often influenced by book entries, information may lose some of the "quality" and "capacity" outlined by Kirschenheiter and Melumad.

Fortune (1980:155) argues that companies are reporting useless numbers, for if a company is supposed to report relevant information to decision makers but they use "arcane rules", dating back to the "fifteenth century", they provide investors with very little information that is of practical value for decision-making. Information obtained through income smoothing does convey relevant information for the prediction of future earnings, provided that management has some knowledge about the company's future earnings (Barnea, Ronen and Sadan 1976). This is achieved through the application of classificatory smoothing of income with extraordinary items.

In a survey conducted by Mulford and Comiskey (2002), 121 of the respondents indicated that income smoothing may harm investors and 66 indicated that income smoothing may actually help investors. One respondent indicated that accounting should be results neutral, that is, it should simply report what has happened without affecting the actual results.

5.7 Conclusion

This chapter explored the techniques of earnings management in the form of income smoothing and big baths. Reasons why these two techniques prevail in practice were presented.

However, not all income smoothing is undesirable. Some "window dressing" may be harmless, as long as it does not become addictive and results in management resorting to desperate measures if dearly hoped-for earnings cannot be realised during a certain

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period (Getschow 1986). When a company uses income smoothing as a strategic tool, they should however be careful that income smoothing does not harm any of the stakeholders. It is important that the company keeps on building trust. In order to do so they must make proper use of sound and trustworthy accounting techniques whereby the integrity of the information that is reported to the stakeholders is beyond any reasonable level of suspicion.

The next chapter covers the research methodologies that were followed in this dissertation.