1 Background and the research problem

1.1 Introduction

This dissertation is about the integrity issues surrounding certain accounting information which is created by book entries. A book entry is the main mechanism whereby a *future event* is created. In particular, differences between the integrity of information created by *real* (*historic*) *events* and the integrity of information created by *artificial* (*future*) *events*, are considered.

Financial reports prepared by an accountant in the information business should provide adequate information that is useful in making economic decisions. It is essential that all the relevant users of financial statements are able to rely on the information supplied in financial statements. Accountants have to provide the users of financial statements with *reliable* and useful information that is *relevant* to the decision that has to be made. *Reliability* and *relevance* are two qualitative characteristics of financial statements found in the accounting framework AC000 (Hemus, Wingard and Becker 2000). This framework introduces four qualitative characteristics, namely, understandability, relevance, reliability and comparability, all of which make accounting information useful to the users. All these characteristics enhance the integrity of information.

The source of information may be divided into two categories, namely, *events* and *future 'events'*. This source is regulated by some assumptions, namely, *matching, accruals, prudence* and *going concern*. Assumptions are good guesses, something "taken for granted" and "supposed but not proved" according to Hornby (1981:47). With accruals information is created irrespectively of time or cash, while with prudence, certainty or the best estimate is used to create information. When information is based on an estimate rather than reality, there may be a difference in the integrity of the information.

Events concern what has happened and may therefore be considered reality. Since a transaction involving cash is certainly considered to be 'reality' (hence the phrase "hard cash"), a cash transaction is seen as the 'purest event': "While it is relatively easy for companies to adjust profits to suit their own purposes by enhancing profits at the expense of the balance sheet, creating cash is virtually impossible" (Ellis and Williams 1993:168). The accountant observes changes in occurrences and events which are eventually recorded and converted into financial statements. A future event has not taken place yet and because of the uncertainty about what is going to happen, in contrast to an event that is based on history and reality, the integrity of information may differ. The tool created to handle these uncertainties is the so-called 'book entry'. Future 'events' may be seen as artificial because they are made up, based on assumptions and personal judgements.

In the accounting world there are primarily two types of transactions: objective transactions, based on real events, and subjective transactions, based on future happenings and expectations. According to Goldberg (2001), information available about any given set of circumstances is always about the past, something that has happened, whether it was recently or long ago. Prediction of future happenings and expectations is based either on speculation or, possibly, on deduction from logically recognised assumptions, but none the less speculation about what might happen in the future. The information is limited because of the absence of omniscience, not only about the existing state of affairs in total or in general, but also about the composition of the relationships between the numerous elements which make it recognisable. If a provision is seen as speculation about what might happen, it is clear that the integrity of information created by book entries might not be the same as the integrity of information created by transactions that are based on facts.

Companies use book entries as mechanisms to smooth their income or to be part of creative accounting (Mulford and Comiskey 2002). Income smoothing is described by Wild, Bernstein and Subramanyam (2001) as a common form of earnings management, that is, managers may decrease or increase reported earnings to reduce volatility. The method used to smooth income involves not reporting part of earnings in profitable years through “creative reserves” or “earnings banks”, whereafter these earnings are reported in less profitable years. Smoothing of income occurred as early as 1944 (Hepworth 1953). Creative accounting has a somewhat similar description: “Every company in the country is fiddling its profits. Every set of accounts is based on books which have been gently cooked or completely roasted” (Griffiths 1995:vii). When income smoothing or creative accounting is put into practise by a company, it follows that the integrity of the information may differ from the integrity of the information created by real transactions.

The opposite of income smoothing is taking a ‘big bath’. This practise is described by Fridson and Alvarez (2002) and may be summarised as follows: If a company suspects that it is going to suffer a decrease in its quarterly profit too large to erase through discretionary items, the company may opt to “take a big bath” by maximising the reported loss. According to market sentiment investors will not be much more disturbed by a 30% drop in earnings than by a 20% drop. The method used, is usually to accelerate certain future expenses into the current quarter, resulting in more positive earnings in the following quarter. Applying a big bath may also affect the integrity of the resultant information.

Creative accounting practices may be used by the management of a company to change impressions about the company’s performance (Mulford and Comiskey 2002). Assessments of corporate earning power may be rendered inaccurate, leading to inappropriate prices for debt and equity securities. When the markets realise that misstatements were given, they may be unforgiving and a decline in debt and equity prices may follow. If the company uses book entries to show a different picture of their company to stakeholders, the integrity of the information created in this way may not be the same as the integrity of information resulting from real transactions.

According to Mulford and Comiskey (2002) creative accounting practices are classified into five categories:

(1) Recognising premature or fictitious revenue
(2) Aggressive capitalisation and extended amortisation policies
(3) Misreported assets and liabilities
(4) Getting creative with the Income Statement
(5) Problems with Cash-Flow reporting

The above five categories are all brought about by book entries. When premature or fictitious revenue is recognised, a book entry is used because no real transaction exists. Aggressive capitalisation and extended amortisation policies as well as the revaluation (misreported assets and liabilities) of assets and liabilities, are brought about by book entries. When items in the income statement as well as the cash flow statement are reclassified (category 4 and 5), book entries are also used.

When smoothing of income takes place, the message in the financial statements conveyed to the owner over time is correct, but such financial statements signal the wrong message to the decision maker. The greatest motivating factor behind income smoothing and creative accounting is the fact that the statements are generated for reporting (stewardship) and not for decision-making. Stakeholders have to be reassured that the company's earnings are stable. Hepworth (1953:53) shares this point of view:

> A less tangible, but perhaps more fundamentally important type of advantage of a relatively stable level of periodic income lies in the area of management relations with

> investors and workers. Certainly the owners and creditors of an enterprise will feel more confident toward a corporate management which is able to report stable earnings than if considerable fluctuation of reported earnings exists.

It may seem to outside stakeholders and even to some of the inside stakeholders of a company that stable earnings represented in the financial statements is an indication of good stewardship, but the integrity of the information may be influenced and may compromise decision-making.

The following are accounting techniques, often used to smooth periodic income through the use of book entries (Hepworth 1953):

Manipulation:

(1) Gross revenue manipulation: A rather direct approach to the objective of income smoothing may be made through the process of inter-period shifting of gross revenue.

Classification:

(2) Deferred charge and intangible asset accounting: The accounting for so-called deferred charges and intangible assets represent an area in which ‘generally accepted accounting principles’ seem to provide substantial latitude in the matter of original recognition of such items as assets (as opposed to liabilities) as well as subsequent amortisation thereof.

(3) Original acquisition of plant assets: The absence of a specific and consistently applied distinction between asset and expense charges may provide substantial opportunities for income smoothing.

(4) Alternative methods of calculating periodic depreciation: Undoubtedly the most extreme situation in this classification exists in connection with proposals to calculate depreciation as a function of gross revenue or of income, instead of considering depreciation as a cost.

(5) Treatment of non-recurring charges or credits: The possibility of alternative treatment of unusual or non-recurring charges or credits as between inclusion in the computation of net income or direct addition to or deduction from retained earnings, may well present an opportunity for the smoothing of periodic income.

Revaluation:

(6) Inventory accounting: Alternative techniques of inventory valuation may provide a very significant method of income smoothing.

(7) Reserve accounting: Historically, there have been extreme examples of the use of reserves as profit equalisation devices, involving additions to or deductions from such reserves, offset by income statement accounts having the professed intention of income smoothing.

Change in accounting policy:

(8) Property accounting: The existence of long-lived depreciable or depletable assets presents one of the most potent (and in many cases most essential) opportunities for income smoothing.

(9) Determination of the base to which depreciation rates are applied: Substantial alteration in the depreciation base may produce significant changes in net income during periods of rapid change in business activity or price level.

Manipulation, classification, revaluation and changes in accounting policy are all brought about by the use of book entries. Book entries may be used in different circumstances to change the integrity of information in the financial statements.

1.2 Problem statement

The problem for which an answer will be sought is whether there are any notable differences between the integrity of information created by real transactions (real events) and information created by book entries (artificial events). Integrity of the information is determined by the accounting process.

The above problem may be approached from the angle of contrasting real (historical) events with artificial (future) events – an area in which the new science (Wheatley 1999) has made much progress over the last couple of decades. Research studies in the new science indicate that there are new realities to consider in cases where things are observed. "The science encouraged me to believe that there are new ways of comprehending the issues that trouble organizations most: chaos, control, freedom, communication, participation, planning, and prediction" (Wheatley 1999:xiii). An accountant is an observer of transactions. The word transaction means "piece of business" (Hornby 1981:918) and therefore an accountant is an observer of a piece of business. Accountants may only reflect observations and as such cannot create information.

The manner in which information is described by this new science is crucial and the accountant, being in the information business, must take note of the new realities concerning information. "We worry more about the accuracy of the small bits of information we have and how best to analyze them than about the huge amounts of information we lose" (Wheatley 1999:66). Therefore, when a company decides to use book entries to reach certain strategic goals, some of the integrity of the information may be lost.

A statement made from the arena of quantum physics that also touches on forces interacting with each other in the accounting world is: “We live in a universe where relationships are primary. Nothing happens in the quantum world without something encountering something else” (Wheatley 1999:69). In essence, every business transaction is a reflection of a relationship and is the result of cause and effect.

It seems that book entries are being used to achieve a company’s goals. Ellis and Williams, (1993:169) state that “profits are not necessarily a reliable measure of a company’s performance [as] companies can adjust profits to suit their own purposes by using provisions”. A book entry (provision) may therefore result in information that is not reliable since the book entry (provision) was created to ‘smooth’ income as well as for other purposes. According to Wheatley (1999) people simply make information up when information is not available. Information is described by the new science as something that cannot be controlled. The accountant being in the information business must therefore take note of the new realities which affect information. A book entry is neither a transaction nor a reality and may represent intentional smoothing, aimed at presenting the business as stable as possible for reporting purposes. However, being stable in the new science is not considered a virtue.

1.2.1 Book entries are necessary for accrual accounting

Accrual accounting is described as an accounting process of recognising non-cash events and circumstances as they occur (Most 1982). Accrual accounting is concerned mainly with future cash receipts and payments, instead of prepayments and deferrals, which are concerned with past cash receipts and payments. Book entries are seen as non-cash events and are concerned with future happenings. To defer is in essence a process of postponing an expense or income item to a later stage. When a cash inflow item is deferred, it becomes a liability and when a cash outflow item is deferred, it becomes an asset. Non-cash events are based on the future whereas cash events are based on the past and present. Since the future holds uncertainty, accountants may create information with a different integrity than the information based on past reality.

Hicks defines a man's income as the “maximum value which he can consume during a week and still *expect to be* as well off at the end of the week as he was at the beginning. (Part omitted). However, Hicks did not believe that income (or depreciation, or investment) were suitable tools for analysis because ‘there is too much equivocation in their meaning, equivocation which cannot be removed by the most painstaking effort’” (Most 1982:213). If income, depreciation and investment are seen as full of ambiguity, misrepresentation and untruthfulness, it is certainly not a measure to use for decision-making, either by inside or outside stakeholders. This means that book entries may seriously affect the integrity of information contained in financial statements.

There are two schools of thought concerning accrual accounting. Advocates of accrual accounting strongly support the idea because they believe it to be superior to cash accounting on the grounds of measuring performance and financial condition. Critics of this idea claim that the main reason for the existence of financial analysis is to unveil accrual accounting and to find the real cash flows. In this regard Wild *et al*. (2001:101) argue that “They are troubled by the intricacy of accruals and their susceptibility to manipulation by managers”. Book entries are used in accrual accounting and may pave the way for income smoothing or manipulation of earnings. Critics also view accrual accounting as a combination of “complex and imperfect rules that obscure the purpose of financial statements – that of providing information about cash flows and cash generating capacity” (Wild *et al*. 2001:101). The rules of accrual accounting are very flexible and complex and may therefore provide the analyst and other users of financial statements with information, for decision-making purposes, of a lesser integrity than cash accounting.

1.3 Motivation

1.3.1 Importance of the study

Following on the problem statement in section 1.2, this research aims to:

(1) differentiate between artificial and real information by showing the effect of creative accounting on a company's figures and thereby minimise the effect of creative accounting and income smoothing;
(2) make information useful to all stakeholders;
(3) show which ratios are more user-friendly;
(4) make financial statements more user-friendly in compliance with corporate governance;
(5) show companies what book entries, internal funds and/or provisions are all about, and
(6) illustrate to companies that they often do not adhere to certain disclosure principles.

Because the use of book entries is so controversial, and yet appears to be so under-researched, researchers from the discipline of economics are entering the field of accounting as is clear from a Spanish article by Martinez Bobillo, De Andres Alonso and Gaite (2002). Martínez Bobillo *et al.* (2002) used fixed assets to demonstrate the company's ability to generate internal funds. The aim of their paper was to find a balanced interpretation of the possible relationships between investment decisions, the financing policy and the company's system of governance, all tied to its ownership structure.

1.3.2 Beneficiaries of the study

The following stakeholders are expected to benefit from this research:

(1) The accounting profession as a whole – all parties of the accounting profession are made aware of the impact of book entries on the integrity of information.
(2) Managers of all companies – make managers aware of the benefits of internal funding vs. external funding.
(3) All decision makers – if they are aware of the impact of book entries on the financial statements, decision makers may be able to make use of more reliable and transparent information with a higher integrity level.

1.4 Hypothesis

The hypothesis to be tested, given the problem statement in section 1.2, is:

The integrity of information created by book entries is based on subjective opinions because it is based on future events therefore it is not the same as integrity of information created by real transactions that is based on historical events.

1.5 Research objectives

The research objectives of this study are to:

(1) investigate integrity issues of information created by book entries;
(2) make internal funding visible and practical;
(3) enhance the quality of financial information; and
(4) show how, by means of ‘creative accounting’, artificial information can manipulate figures. (When companies revalue their assets, there is an opportunity for creative accounting (Griffiths 1995). Revaluation affects the depreciation charge to the income statement, which in turn affects the profit/loss, which then affects the

earnings per share as well as the accumulated profit/loss in the balance sheet).

1.6 The research methodology

The research conducted in this dissertation was three-tiered (Refer to Chapter 6 for a more comprehensive discussion):

(1) Literature survey

(a) A comprehensive literature survey was conducted using books on the subject, articles in journals and the Internet.
(b) Part of the literature survey was interdisciplinary. The field of the new science was referred to in order to reveal new guidelines explaining certain aspects that are relevant to the field of accounting.

(2) Analytical

An analysis of 30 companies from the sectors listed on the JSE was performed. The analysis covered a five-year period and was based on the McGregor BFA database (http://library.mcgbfa.com) which stores all the financial statements of all the listed companies.

(3) Questionnaire

A questionnaire was sent to all the financial managers of the companies listed on the JSE as well as financial analysts to determine the importance of, and their own attitudes towards book entries.

1.7 Layout of the dissertation

In Chapter 2, the history of book entries as well as an account of the early treatment of depreciation are presented, followed by the history of the cash flow statement. A number of definitions related to this research, together with an analysis of these definitions, are presented.

In Chapter 3 book entries and a new information perspective, from the new science are discussed. This relationship and the new perspective on information and accounting are explained. The influence of the phenomena of time on accounting is discussed. The new science reveals a new way of thinking about observation, reality, objectivity, prediction and relationships.

Chapter 4 introduces the role of transactions and book entries in accrual accounting, followed by definitions and discussions of the accounting assumption matching, contingencies, classification, provisions and conservatism, and their relationship to book entries. The use of ratios is discussed, and two specific book entries, namely, depreciation provision and deferred taxation are presented.

The role of book entries in income smoothing and big baths is the topic of Chapter 5. This chapter addresses issues such as why companies make use of income smoothing and big baths, how these companies make use of income smoothing, as well as examining the distinction between income smoothing and big baths.

In Chapter 6 a discussion is presented on the research methodology listed in section 1.6.

Chapter 7 presents the results of the literature survey, analytical research as well as a discussion of the questionnaire.

Chapter 8 concludes this dissertation and presents some pointers for future work that could be undertaken.