

ISSUES SURROUNDING THE CLASSIFICATION OF ACCOUNTING INFORMATION

Huibrecht M van der Poll

Department of Management Accounting, UNISA

Daan G Gouws

Department of Financial Management Sciences, University of Pretoria

Abstract

The act of classifying information created by accounting practices is ubiquitous in the accounting process; from recording to reporting, it has almost become second nature. The classification has to correspond to the requirements and demands of the changing environment in which it is practised. Evidence suggests that the current classification of items in financial statements is not keeping pace with the needs of users and the new financial constructs generated by the industry. This study addresses the issue of classification in two ways: by means of a critical analysis of classification theory and practices and by means of a questionnaire that was developed and sent to compilers and users of financial statements. A new classification framework for accounting information in the balance sheet and income statement is proposed.

Keywords: Accounting information, attribute, classification, reclassification.

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1 Introduction

Classification plays a fundamental role in Accounting Science, so much so that the Committee on Terminology of the American Institute of Accountants (now AICPA) explicitly embeds classification in its definition of accounting, saying that accounting is “the art of recording, classifying and summarizing” (Kam, 1990: 33).

Classification in accounting starts as soon as an event (such as a transaction) occurs, is observed by an accountant and is subsequently recorded. A transaction is first classified when it is recorded as a debit or a credit, after which it is classified as an asset, a liability, equity, income or an expense. This classification is evident in the fundamental accounting equation: $assets = liabilities + owner's\ equity$. In this paper, we refer to groupings such as the asset, liability, equity, income and expense denotations as *accounting classes* because we attempt to develop a usable

classification framework. They are therefore not referred to as *elements of financial statements*, as they are traditionally called when they are used uniformly by companies, and as is prescribed by General Accepted Accounting Practices (GAAP) and/or the International Financial Reporting Standards (IFRS).

A literature survey revealed a number of problem areas in the way in which accounting information is currently classified in financial statements. A questionnaire was developed to investigate the problems observed in the literature and this questionnaire was sent to a number of stakeholders. On the strength of the literature survey and the outcome of the questionnaire, we argue that a proper classification framework for accounting information needs to be developed. One possible approach may be to structure the information that is currently presented in financial statements differently in order to make the information more useful and accessible to all stakeholders.

The layout of the paper is as follows: in Section 2, various aspects of the problem statement are analysed. In Section 3, the research methodology that was employed is discussed. In Section 4, the problem statement is set out, and in Section 5, issues surrounding the classification of financial information in the balance sheet and the income statement (identified by means of the critical literature survey and the responses to the questionnaire) are discussed. Section 6 contains a brief discussion of the synergy between the results of the research and accounting theory, while the proposed classification framework for the balance sheet and income statement is presented and discussed in Section 7. The paper concludes with a summary and some pointers for future research in this field, in Section 8.

2 Perspectives surrounding the problem

The perspectives surrounding the problem may be divided into three categories, namely

- science, classification and accounting;
- historical classification practices as a ritual; and
- classification for the purpose of the user – the need to adapt.

2.1 Science, classification and accounting

The domain of science, which observes, classifies, quantifies, measures and analyses in order to create order from complex phenomena, is also applicable to the domain of accounting. In every science, classification is often one of the first activities to be performed. When one is comparing and classifying the variety of phenomena, structures, shapes and attributes in accounting, one can hardly take all the individual features into account – a few significant ones must be selected. Classification is a human activity involving the identification of one characteristic or several characteristics which a number of disparate occurrences or phenomena have in common, and arranging them according to this characteristic or these characteristics. Humans

classify in order to identify the relationships between occurrences or phenomena and also to categorise the relationships between occurrences or phenomena and our own experience (Goldberg, 2001). People essentially classify in order to understand, but through classification, they may also reduce or restrict the data. More comprehensive ways of classification may lead to the identification of other, more profound characteristics or relationships, which may prove more informative.

2.2 Historical classification practices – habitual or not?

The process of classification is one of the common activities of accountants since much of it may be done habitually (Goldberg, 2001). One such example is the use of the *current/non-current* classification, which, according to Foulke (1961), dates back as far as 1898. In the almost 20 years from 1898 to 1914, this classification became an established practice, and it is still in use, even though it is rather dated. Classification continues to be a focus of research in Accounting and has been debated since the early 1900s, (Van der Poll, 2007). The use of this now rather dated classification in modern times may have to be re-evaluated.

As Wolk, Dodd and Tearney (2004: 318) argue, “it is remarkable that the categoric[al] framework used to classify accounting transactions is virtually unchanged since Pacioli’s time”. Since the time of Pacioli, which was the late 15th century (Taylor, 1942), a vast number of changes have taken place in the industry and new types of transactions have been developed. Although these new types of transactions *have* been included in the current framework (a framework which we regard as being outdated), they may have different attributes from the traditional transactions. The attributes of a transaction may also fit into two or more categories simultaneously, resulting in accounting hybrids. (In this paper, the term “attribute” is the technical name used for a property or a characteristic of an entity, for example, in the sense that a name is an attribute of a particular entity, namely a particular “person”).

2.3 Classification for the purpose of the user – the need to adapt

Companies have to adapt their information systems and the types of information they use to manage the company (AICPA, 1994). There is an increasing risk that financial reporting may lag behind when changes (such as the introduction of new types of transactions, for instance, financial instruments) take place very rapidly, resulting in a failure to provide the relevant information that users need to make informed decisions. The AICPA (1994: 2) committee makes a clear statement about this threat: "Today, more than ever, business reporting should keep up with the changing needs of users or it will lose its relevance." It is therefore important to stay in touch with the needs of users when standard setters develop new standards for the reporting of financial information, and these needs should be taken into account when a classification framework for accounting information is developed.

3 Research methodology

The research methodology employed in this study can be divided into the following categories:

- a critical analysis of classification theory and practices;
- a questionnaire;
- a content analysis of the balance sheet and income statement; and
- an investigation of the necessity for a new classification framework for accounting information.

3.1 Critical analysis

To analyse the natural language arguments quoted in this article, critical natural language reasoning (NLR), as proposed by Ryan, Scapens and Theobald (1992: 157-158), was employed. When reasoning about a claim, one normally starts with a premise or premises and then rationalises from the premise or premises to a conclusion. In the process, a number of

assertions, justifications and explanations are formed, all aimed at justifying the conclusion (Ryan et al., 1992). The analysis in this study focused on literature covering approximately the last 100 years, with reference to accounting statements and how they work. Other disciplines, for instance, Science, Psychology and Logic, were also consulted.

3.2 Questionnaire

A questionnaire was compiled based on the outcome of the critical analysis of the literature. It was sent to compilers and users of financial statements. The population sample consisted of 309 listed companies, eight analysts and 190 academics. In the case of most of the listed companies, the questionnaires were usually answered by the companies' financial managers, who fulfil the role of compilers as well as users (when they make decisions). The remaining respondents indicated that they were users outside of their respective companies, namely, analysts. The questionnaire consisted of a total of 32 statements; and in this paper nine of these statements are reported on. In the discussion of the results for each of these nine statements, the claim made in the statement used in the questionnaire is presented, followed by an analysis of the responses from the participants.

3.3 Content analysis

A content analysis was performed on the financial statements of listed companies to establish current classification practices. A total of 93 companies formed part of the analysis, and only their balance sheets and income statements were used. In each case, the analysis covered company data spanning a period of three years. Owing to the sheer volume of the data, it was decided to not analyse issues surrounding the cash flow statement as well. Future work in this area could embark on an analysis of cash flow statements. The three year periods selected varied between the companies, depending on the availability of their year-end reports, but the analysis mostly included the data for the three years from 2003 to 2005.

3.4 New framework for the classification of accounting information

Taking all the above findings from the questionnaire and the literature into account, the necessity for a new classification framework for accounting information was debated.

4 Problem statement

The act of classifying information generated by accounting practices is performed throughout the accounting process; from recording to reporting, it is almost second nature. The problem statement in this study centres on a number of issues, namely that the classification process

- may become habitual and therefore subjective;
- does not respond to the new financial constructs that have been created by industry practices, which contribute to accounting hybrids; and
- does not keep up with users' needs – different users may need different classifications to aid them in their understanding of complex accounting phenomena.

Furthermore, change influences accounting information and the usefulness of the financial statements portraying accounting information. Lev and Zarowin (2003: 494) argue that "the increasing rate of change experienced by business enterprises, coupled with biased and delayed recognition of change by the accounting system, is a major reason for the documented decline in the usefulness of financial information". According to Lev and Zarowin (2003), research and development (R&D) is often the primary driving force behind changes in companies, as it leads to the creation of new products and improved manufacturing processes. Naturally, changes in terminology and accompanying systems also occur as a result of R&D. As change takes place, the classification framework for accounting information may need to keep pace with this change in order to report useful information.

5 Issues surrounding the classification of accounting information

In this section, perspectives mentioned in the literature on the current classifications of accounting information are presented. The sub-sections of the discussion are

- different classifications for different purposes;
- classification's role in providing useful information;
- how users may be misled by current classifications;
- the inability to classify new developments;
- classification challenges in the financial statements, namely the balance sheet and the income statement; and
- the reclassification of accounting information at year end.

5.1 Different classifications for different purposes

Users of financial statements often have conflicting needs. For example, the management of a company may require information in the income statement in a different format from that required by the Receiver of Revenue. However, sometimes the information content required coincides, even though the formats for presenting these could be different. This view is echoed by the IFRS (2004: 25): "While all of the information needs of these [differing] users *cannot be met* by the financial statements, there are needs which are common to all users."

Stakeholders normally have different accounting and company backgrounds (Hendriksen & Van Breda, 1992), and when classification and summarising occur, information and relationships valuable to certain users or groups of users could be omitted. Developers of classification guidelines therefore need to take note of the informational requirements of *all* the users of financial statements.

It follows that there are two possibilities for defining a classification framework for accounting information:

- A *first* possibility is to try to accommodate all conflicting requirements by constructing a different classification system for different users in such a way that none of the requirements are in conflict with any other(s), given any one of these classifications. This would result in multiple classification frameworks for accounting information.
- A *second* possibility is to construct a single classification framework for all users, recognising that not all requirements can be accommodated in such a framework. This is the approach followed in this paper and is briefly introduced below and is later expanded on. A comprehensive list of user requirements (including those that conflict with one requirement or several others) can be compiled through one or more Joint Application Development (JAD) workshops. In a JAD workshop, all stakeholders come together and are consulted on what their needs are. Ideas are then brainstormed by

accountants, standard setters, users, and so on. JAD is discussed in a number of texts, such as that by Wood and Silver (1995). Once the various sets of user requirements have been formulated, these requirements can be merged into a larger set containing all the requirements. Thereafter all those requirements that conflict with any other requirement(s) can be removed, leaving a comprehensive set of all the requirements without contradictions. A framework can then be constructed, based on the resulting requirements. Conflicting requirements can be reported on as additional information to the financial statements of a company. An advantage of the JAD approach is that a simpler classification framework for accounting information is likely to be created.

A debate on the two alternatives mentioned above led to the formulation of Statement 1 below, which was tested among the stakeholders who participated in the questionnaire.

Statement 1: A different classification system should be in place for different users

Analysis of Results: Statement 1 showed that the respondents were divided equally on this issue: 50 per cent of the respondents agreed with the statement. A flexible classification system may provide users with more information contained in the financial statements, as well as supplementary contributions (Miller & Bahnsen, 2002). The respondents who agreed with this statement may be more open to the possibility that information portrayed in the financial statements may be useful to all decision-makers (via different classification systems), be they internal users (such as management within the company) or external ones (such as analysts).

5.2 Classification's role in providing useful information

One of the goals of a user is to make decisions based on the accounting information portrayed in the financial statements. Goldberg (1964) claims that this important function of financial statements – assisting users to make decisions – is often not performed, which implies, that

this problem is evidently not acknowledged. The Trueblood Committee (Wolk et al., 2004: 172) states that the “basic objective of financial statements is to provide information useful for making economic decisions”. An accountant is therefore faced with the task of supplying users with accounting information that will suit their needs. Naturally, the information portrayed in these statements has to be classified in some or other way to satisfy these users; so, the challenge is to develop a classification framework that will best meet this need.

Accounting is also criticised by economists and analysts for not displaying useful information. According to Lev (1974), economists view the financial information reported in financial statements as often being irrelevant to decision-makers because there are serious inconsistencies between accounting and economic evaluation concepts. More recently, Lev (2003: 520) again made a plea for the increased utility of information reported to users, writing that “it is widely recognized that the current accounting system does not convey relevant and timely

information about the value chain (business model)". It is plausible that the quality of information could be enhanced through the development of a classification framework for accounting information. Information that is relevant to users may assist them in making more informed decisions.

Decision usefulness is also emphasised by the Financial Accounting Standards Board (FASB, 2008a), when it states that those who provide capital to companies make use of the information reported in the financial statements for making decisions. Decisions based on this useful information include whether capital should be provided to a company and whether the company has the ability to generate net cash inflows. Therefore, it is important to request the opinion of capital providers when information is classified. Users also indicated to the FASB (2008c) that they need additional information on financial assets that are transferred to enable them to make informed decisions, and they also

need to know about the continued involvement of the transferor.

By classifying only the most subordinated instruments as equity, the basic ownership approach distinguishes more clearly between the interests of different stakeholders. Under current GAAP, the interests of several different classes of stakeholders are commingled in equity (FASB, 2007).

The way accounting information (such as accounts) is grouped into classes may influence its quality and usefulness. An example of such a class in financial statements is assets. When a group of ledger accounts are combined into a class, it makes sense to keep items with similar attributes together in one group to facilitate the classification of information in the financial statements. Furthermore, it is plausible that the skill of the classifier plays a determining role in the quality of the groups or classes constructed. This argument led to the formulation of the following statement in the questionnaire.

Statement 2: The value of financial statements depends on the skill with which the ledger accounts are arranged into groups and classes (Fitzgerald, 1938: 249)

Analysis of Results: Of the respondents, 64 per cent agreed with Statement 2. This positive response shows that there is a fair amount of agreement that skill is necessary for the classification of financial information. The quality of financial statements depends on the quality of the information supplied (Miller & Bahnsen, 2002), which in turn depends on the quality of the classification system used. One of the financial managers claimed that accounting statements are too complex, and that this means that less meaningful information is communicated to investors. It is hard to conceive of classification as being cast into a mere fixed structure, since it needs to be flexible enough (see the discussion in Statement 5 below) to incorporate new items with new attributes.

The accountant of the future has to be skilful and alert to opportunities for the reclassification of information as attributes change. To this end, Lev and Zarowin (2003) claim that information should be reclassified over time when, for example, a company has a restructuring exercise, to enable the statements to reflect economic reality. Investors and other users need to make changes to the financial statements and the information they contain routinely to enable them to use such information for decision-making, according to the Chartered Financial Analysts (CFA, 2005). A proposed classification framework addressing the needs of those who currently have reasons to reclassify information may lessen such reclassification needs.

The preceding discussion led to the following statement in the questionnaire.

Statement 3: It is necessary to reclassify financial statements in order to reflect economic reality (Lev & Thiagarajan, 1991)

Analysis of results: Of the respondents, 53 per cent agreed. The response shows that a classification of information and also a

reclassification of information already published in financial statements might be necessary. New relationships may be revealed when

reclassification takes place. Economic reality is often a personal perception of each and every user. Users need information to create their own economic reality and such information should be supplied by the classification system. Reclassification may be necessary for some users and would normally be based on the information supplied by the classification system in use.

5.3 How users may be misled by current classifications

Users may often be misled by the information contained in financial statements. This notion is expressed clearly by Riahi-Belkaoui (2004: 364) with regard to the conventional accounting model: "Its classification schemes are not

always appropriate. The chart of accounts for a particular enterprise represents all of the categories into which information concerning economic affairs may be placed. This will often lead to data being left out, or classified in a manner that hides its nature from nonaccountants". According to Miller and Bahnsen (2002), information supplied in GAAP financial reports often does not provide users with what they need – this may be due to the way in which the information is classified. The objective of financial reports is to provide useful information, but if the information is classified in a manner that hides the nature of the data or even omits data, this objective is not attained. This argument led to the following statement in the questionnaire.

Statement 4: The accountant's classification may preclude or inhibit others from using much-needed information (Goldberg, 2001: 42)

Analysis of results: Of the respondents, 57 per cent agreed. This response indicates that there is indeed a need for the proposed classification framework for accounting information. Wheatley (1993) points out that information is lost when it is collected and organised (in other words, classified), since the observer focuses on the accuracy of certain aspects and loses some information on other aspects that he or she does not focus on. A solution would be to draw up a balance sheet and to provide additional information to the users to enable them to make their own classification based on their own needs.

5.4 The inability to classify new developments

Accounting evolves continually as new types of transactions emerge. Henderson and Peirson (1994) point out that the form of accounting that was developed during the 13th and 14th centuries currently faces the challenge of new developments in business practices, the law and social attitudes. This was noted by Wolk et al. (2004), who state that the framework that was used in the time of Pacioli is virtually unchanged, although many changes have occurred in the industry since then. Lev and Zarowin (2003) also

claim that the accounting system has a delayed recognition of change and this leads to the recording of information that is not very useful. Accountants are therefore compelled to find new ways to classify new types of transactions and to compile reports within an accounting system that was developed in an environment very different from the present one. According to Henderson and Peirson (1994), opinions on how to handle new types of transactions vary considerably. Examples of these new types of transactions include leases, company tax, inter-corporate investments and intellectual capital. Any new classification framework that is proposed needs to be sensitive to possible future developments. To this end, using the attributes of a transaction gives the classification thereof a dynamic character and could, therefore, allow accountants to adapt to changes and new developments.

The classification currently in use is based on a structure provided by Wolk et al. (2004). This structure is based on the fundamental accounting equation (mentioned in the introduction) and is inherently static. Since "structures" are intrinsically inflexible, it is hard to make (structural) changes. It is plausible that new kinds of transactions will introduce new attributes and relationships and that they may not fit into the

present classification structure. This may be the result of new transactions being forced into an existing structure. Any classification framework for accounting information that is proposed has to be flexible enough to accommodate new kinds

of transactions, possibly by incorporating the notion of time and moving beyond mere static structures. The perceived inadequacies of the current classifications led to the following claim in the questionnaire.

Statement 5: New types of transactions emerge continually, rendering the current classification system inadequate

Analysis of results: In this instance, 37 per cent of the respondents agreed. Two main groups of responses were received, namely, those who believe that new kinds of transactions will not fit into current static structures (37 per cent), and those who believe that the new items should be forced into an inadequate structure (47 per cent). The rest of the respondents were undecided. The relatively higher percentage of respondents willing to maintain the *status quo* could be attributed to the human trait of resistance to change.

The FASB (2003) opposes the creation of new classes, because it argues that before *FAS150* was issued, the statement of financial position classified certain financial instruments between the liabilities and equity section. Concept Statement 6 (below) does not permit classification outside the classes of assets, liabilities and equity. If an item does not fit into a class, that would require the Board to define a new element (in the traditional sense) in the financial statements. However, the Board has decided not to follow this course of action, partially because, among other concerns, an undesirable precedent would be set whereby classes are added whenever new instruments that are difficult to classify are developed. In essence, therefore, the FASB (2003) warns against following the apparently easy route of simply classifying an item into a new class whenever it becomes difficult to choose between equity and liabilities. However, the FASB's classification rests on the current accounting equation, which may need to be revised to include a new class or new classes.

The FASB (2007) also points out that although some problematic aspects surrounding the classification of accounting information have already existed for a number of decades, they are becoming increasingly contentious.

The issue the Board addresses is that of the classification of financial instruments, because the problem has become more prevalent since new and more complex financial instruments have been introduced and, as a result, current accounting classification and practices which were developed for relatively simpler financial instruments have become outdated. Therefore, a new classification system should be able to accommodate new transactions as and when they are developed.

5.5 Classification challenges in the financial statements

The results from the content analysis suggest that companies follow the guidelines supplied by GAAP and the IFRS very strictly. The static structures which we know as the balance sheet and income statement are followed almost to the letter, with some deviations in terminology.

The balance sheet

The balance sheet is a summary of various activities within a company. This view is shared by Littleton (1958: 81), who claims that "the balance sheet is not a clear cut report on financial stewardship". His argument is based on the fact that the balance sheet contains a combination of results from the financing as well as operating activities of a company. The balance sheet is therefore "not very informative about either one separately". Hendriksen and Van Breda (1992: 468) appear to support this claim when they state that "as a device for describing the operations of the firm, the current/non-current classification is defective". An example of the point made by Hendriksen and Van Breda (1992) is found in interest receivable, which does not arise from operating activities of the company. Hence, the balance sheet may need to separate the financing activities from the operating activities.

According to the FASB (2008a), the information supplied in financial reports should be useful in the assessment of the stewardship of a company. The management of a company is held accountable to the stakeholders, who provide capital to the company for the custody and safekeeping of the economic resources and for the way the capital is applied.

The present classification system for accounting information results in accounting hybrids, in other words, items which do not wholly fit into any specific category. These hybrids have attributes which result in their possibly being classified into more than one group, but they do not have all the qualifying attributes to be classified into any *one* of these groups exclusively. In the balance sheet, the categories *assets* and *liabilities* are currently used, but there are items in the balance sheet which fall into neither of these two categories, as Fitzgerald (1936) already observed. Sprouse (1966: 46) calls some deferred credits in the balance sheet "what-you-may-call-its". These are

- purchasing a company at a cost less than the book value of equity acquired;
- gains arising from sale-and-leaseback transactions; and
- deferred investment credits.

The above accounts represent items that are difficult to classify under the normal classification rules of accounting, because they have attributes of more than one class.

The work of both Fitzgerald (1936) and Sprouse (1966) is now dated, but their claims are

still valid, as the fact that these views are shared by Goldberg (2001) shows. It follows that current classifications for accounting information ought to be revised to include these "what-you-may-call-its" or accounting hybrids. Giving special consideration to the attributes of items could be a way forward to alleviate the problem of accounting hybrids.

There is, furthermore, an ongoing debate as to whether some financial instruments should be classified as equity or as liabilities when they possess characteristics of both. The FASB (2003), in *FAS150*, provides some guidelines in this regard, but there are some researchers, such as Clark (1993), Forker (2003), Balsam (1994), Bohan (2003) and Kirschenheiter, Mathur and Thomas (2004), who have all questioned the outcomes of these guidelines. Some of the items in question have attributes of both equity and liabilities. Hence, the possibility exists for the creation of an entirely new class in which such items may be placed, since items classified together need to have the same attributes, and should not share attributes of two or more different classes.

Recently, the FASB (2007: 16-17) decided that the complexity of the reporting of financial instruments should be simplified and suggested that "the basic ownership approach" should be introduced, based on the same approach that is used for all derivatives that are classified as assets or liabilities.

The discussion in this section led to Statement 6 in the questionnaire.

Statement 6: Classified facts may become distorted when unlike elements are classified in the same account
(Littleton, 1958: 45)

Analysis of results: This statement elicited a very positive response – 84 per cent of the respondents agreed. Littleton is regarded as a "founder of [accounting's] intellectual database", as he did much for the development of accounting thought and theory (Bedford & Ziegler, 1975: 435). One respondent commented as follows: "Clearly the summation of unlike items will lead to a dilution in the quality of the information." A proposed classification framework for accounting information would be

expected to classify items with similar attributes into one class, and those with different attributes into other classes.

Next we turn our attention to problems with the classification of items as *current/non-current* and *working capital*. The classification of items as *current* and *non-current* in the balance sheet has been a further area of critique for many years, judged by the work of Gilman (1944), Herrick (1944), Kempner (1960), Moonitz and Jordan (1963), Huizingh (1967), Heath (1978), Kam

(1990), Hendriksen and Van Breda (1992) and Wolk et al. (2004). The items currently classified together in the balance sheet do not originate from the same type of operations. For example, interest receivable and accounts receivable are grouped together as *current assets*. Hendriksen and Van Breda (1992: 473) comment that "because of the difficulties regarding the interpretation of the operating cycle and because of the lack of evidence regarding the relevance of the *current asset* classification to any specific user's needs, many believe that other methods of classifying assets should be investigated". Therefore, any proposed framework should address the problem of classifying *current* and *non-current* items. As before, paying attention to the attributes of a transaction could aid in the

classification of *current* and *non-current* items. Furthermore, including time in a proposed classification framework could, in a natural way, address the problem of categorising time-dependent *current* and *non-current* items.

According to Heath (1978), the analyst is concerned with how much cash the company will receive and when, rather than whether the receivable is part of the working capital. The Trueblood Committee (Wolk et al., 2004) also regards the supplying of information that can be used to predict, compare and evaluate future cash flows to be an objective of financial statements. As the working capital classification is part of the financial statements, it should provide the same information. This brings us to the next statement in the questionnaire.

Statement 7: Working capital must be classified in terms of future cash flow realisation (Heath, 1978: 73)

Analysis of results: A total of 65 per cent of the respondents agreed. Working capital classification is not based on future cash flow realisation, since too many hybrids and evaluation methods are involved (Schroeder, Clark & Cathey, 2005; Wild, Bernstein & Subramanyam, 2001). The uncertainty of cash flows is based on the future, and there are degrees of uncertainty which lead to prudence. Objective 3 in the Trueblood Report, referred to in Wolk et al. (2004), recommends that useful information be provided to users for the prediction, comparison and evaluation of potential cash flows; this information should also enable users to take into account the amount, timing and related uncertainty of the cash flows. Although the Trueblood Report may be dated – it was published in 1973 (Wolk et al. 2004) – the recommendations of Objective 3 seem reasonable and current, so much so that importance and relevance are attached to it in a recent work by Wolk et al. (2004). Most investment decisions are based on cash flow data, but accounting ratios are based on accrual accounting and not cash flow accounting (Samuels, Wilkes & Brayshaw, 1999). It appears, therefore, that supplying information with regard to cash flows is much needed in order to assist users in making their own predictions concerning future cash flows.

The FASB (2008a) also recognises the need for supplying useful information in the assessment of cash flow projects. They state that the capital providers of a company need information on the timing, amount and uncertainty of cash flows from dividends, interest and transactions surrounding securities or loans. These cash flows are, however, dependent on the current cash flow situation of the company and on the ability of the company to generate enough cash to pay their employees and creditors, and also on various other operational activities in the company. It is therefore very important to classify information in such a way that future cash flows can be predicted. Furthermore, the FASB (2008b) also proposes that a company supply stakeholders with information regarding the likelihood, timing and amount of future cash flows associated with loss contingencies. These are recognised in the financial statements as liabilities.

The income statement

The financial health of a company can be measured by considering its cash flow. To be able to measure such financial or economic health, one needs to determine where cash is generated from, and how the company applies the cash (Higgins, 2004). The income statement can supposedly be used to establish

this flow of funds, but, as Higgins (2004: 13-14) writes, “further reflection will convince you that the income statement is deficient in two respects”. The reasons he gives are that the income statement is compiled according to accrual theory, resulting in items being reflected that do not represent a flow of cash, and that only cash flows associated with the company operations are displayed, although there are many other cash receipts and disbursements that are absent from the income statement. Since some items in the income statement do not reflect a flow of cash and non-operating cash flows are ignored, the classification of items in the income statement should, in our opinion, be according to

- *real cash and non-cash; and*
- cash flows associated with the operations, and cash flows not associated with any operation.

Statement 8: Accounting information should be classified in such a manner that it facilitates the forecasting of future earnings and cash flows

Analysis of results: A total of 81 per cent of respondents agreed. Analysts are concerned with a company's future earnings and cash flows, and it would therefore be to the benefit of analysts if accounting information could be classified to facilitate this kind of forecasting. Financial managers also need information about forecasting to enable them to make decisions about the future. In the Trueblood Report, one of the stated objectives of financial statements is the provision of information to investors and creditors in terms of the amount, timing and related uncertainty to enable the prediction, comparison and evaluation of potential cash flows (Wolk et al., 2004). The AICPA (1994) suggests that management should supply enough information to enable users to perform their own forecasting of a company's financial future. Any proposed classification framework should facilitate in the forecasting of future cash flows and earning power.

5.6 Reclassification of accounting information at year-end

At year-end, companies perform a special classification exercise to display unrecognised

The use of the point above in a classification system may reveal additional information to the users.

Sorter (1969: 17) claims that each event “should be described in a manner facilitating the forecasting of the same event in a future time period given exogenous changes”. The AICPA Committee (AICPA, 1994: 33) suggests that “in an ideal world, the most relevant accounting data would be those that reported assets and liabilities in a way that would allow analysts to impute the future cash flows emanating from them individually and collectively”.

The literature therefore seems to support the following statement, since (amongst other things) it may assist users in the prediction of future cash flows.

classes of expense and revenue, which results in a reclassification and summation by the double-entry method (Paton, 1962). Littleton (1958: 56) argues that “the task of compressing a mass of transaction facts into an intelligible enterprise statement is too great to be fulfilled by initial classification”. Initial classification, where data is classified into accounts at the time of recording (in other words, in the past, relative to the year-end) is based on kinds and qualities, whereas reclassification is based on fiscal periods or operating departments (Littleton, 1958). In some instances, a preliminary classification of items is performed until a better picture can be formed as to where these items fit into the company's activities. A clearer picture is obtained often because attributes that were not known at the time of recording become known at the reporting stage (in the present). In addition to the standard classification framework, clear guidelines should be provided to the accountant or the classifier for reclassification. The development of such guidelines warrants input from a number of stakeholders, which could be obtained through the use of JAD workshops (see Section 5.1).

Each transaction has a set of attributes when recording (*past*) takes place. As time passes, these attributes may change, and when it is time to report (*present*) on this transaction the new set of attributes may lead to a new classification for this transaction. Some transactions, for instance R&D expenses, may even have future benefits

(Lev, 2003) for the company, which will not be known at the time of recording, but which may be realised later and which may lead to a different classification.

Hence the following claim had to be verified in the questionnaire.

Statement 9: Past, present and future-oriented recordings must be classified separately

Analysis of results: The response was mostly positive, as 57 per cent of respondents agreed. The respondents who disagreed may be inclined to think that, in practice, three different classifications would result in more complex reporting structures and a possible information overload. Nevertheless, in accordance with Statement 9, a proposed classification framework for accounting information may need to take time (past, present and future periods) into account; in other words, it may need to have a temporal component.

5.7 Preliminary summary

As is evident from the discussion of the responses to Statements 1 to 9 above, present classification practices for accounting information do not supply useful information to the users of such statements, mainly because these structures may distort the information and may even mislead the users. Present classifications may also fail to adapt to new developments, resulting in accounting hybrids – in other words, items that do not fit into one class only. The classification problems in the balance sheet – with specific reference to the *current/non-current* classification – are also of concern. The reclassification of accounting information at year-end needs clear guidelines. The outcome of the nine statements above also largely support the views put forward in the literature. All these criticisms suggest that a new classification framework for accounting information is called for.

Next, we present a brief discussion on the synergy between the results presented in Section 5 and accounting theory.

6 Synergy between the results of the research and accounting theory

In the previous sections of this paper, the classification of accounting information was investigated by means of a literature survey to determine the issues which surround the classification of accounting information. A questionnaire was used to determine the validity of the thinking, and a content analysis was done on how information is classified in practice. Several problems with the way accounting information is presented in financial statements were identified through the literature survey, and these views were largely supported by the outcomes of the questionnaire: seven of the nine statements that support views in the literature were agreed with, while one statement (Statement 1) received a neutral (50 per cent) response, and one (Statement 6) elicited a negative response. It is believed, therefore, that the current classification of accounting information requires revision.

Two important aspects emerged from the discussion of the problems with the way accounting information is currently classified:

- The use of *attributes of a transaction*, when it is first recorded, as well as when it is reclassified later, may play an important role in (re)classifying accounting information correctly.
- The introduction of a *temporal component* (time) to any proposed classification system for accounting information may further facilitate the usefulness of such a system. A temporal component will allow items to have past, present and future properties.

Next, we present a brief overview of a preliminary classification framework for accounting information.

7 Towards a classification framework for accounting information

One of the prerequisites for the classification of a transaction is the determination of the attributes of the transaction in question (Nobes & Parker, 2002; Riahi-Belkaoui, 2004) at the time of its recording. It is logical that only those attributes that are known at the time of recording can be taken into account. In this paper, such activity is called an *initial measurement*. An initial measurement is followed by an initial classification of the transaction when it is first recorded. In developing a classification system for accounting information, we make a basic

assumption, namely, that reporting at year-end takes place in the *present* time. By implication, therefore, the recording of a transaction takes place in the *past*, while decision-making processes take place in the *future*, relative to the time of reporting.

A comprehensive list of possible attributes for transactions was drawn up, and from this list a *normative sub-framework*, which is a table of valid attribute combinations known for transactions at the time of recording and reporting, was constructed. A user needs to work through the possible attributes of a transaction to establish the class and sub-class into which a transaction fits. The process can be repeated as new information or attributes become known as time passes until reclassification at year-end.

An example of a normative sub-framework for the class assets in the balance sheet is given in Table 1.

Table 1
Extract from the developed normative sub-framework for assets

NORMATIVE FRAMEWORK – Balance sheet														Sub Entry	Entity					
Core	Realised	Restricted	Tangible	Current	Moveable	Distributable	Impaired	Convertible	Predictable	Regular	Financing	Reserve	Short-term	Entry	Benefit	Immediate	Permanent	Recurring		
Y		Y	N	Y		Y							Y	Y	Y				Fixed assets	
N		Y	N	Y		Y							Y	Y	Y				Fixed assets	
Y		Y	N	N		Y							Y	Y	Y				Fixed assets	
N		Y	N	N		Y							Y	Y	Y				Fixed assets	
Y		N	N										Y	Y	Y				Deferred assets	
Y		N	N										Y	Y	N	Y			Deferred assets	
Y			N				Y						Y	Y	Y				Other financial assets	
Y			N					Y					Y	Y	Y				Loans & security to directors and employees	
Y			N	Y									Y	Y	N				Slow moving inventory and minimum inv level	
N			N										Y	Y	N	N			Past due trade and other receivables	
Y			N										N	N	Y	Y			Deferred taxation – debit balances	
Y Y			Y	Y									Y	Y	Y				Inventory	
N			Y										Y	Y	Y	N			Due trade and other receivables	
Y			N										Y	Y	N	Y			Other current assets	
Y Y			Y	Y									Y	Y	N				Cash and cash equivalents	
Y N			Y										Y	Y	Y				Cash and cash equivalents	
Y			N					Y	Y				Y	Y	N				Investments	
Y			N	N									Y	Y	Y				Deferred assets	
Y			N	N									Y	Y	N	Y			Deferred assets	
Y			Y										Y	Y	Y	N			Non-recurring receivables	

ASSETS

An example of the use of Table 1 in the classification of a transaction follows.

Example 1

Let us suppose an accountant identifies the following combination of attributes for a hypothetical transaction. A 'Y' in a column means that an attribute applies to the transaction, while 'N' indicates that the *opposite* of the attribute applies to the transaction. An example is given in Table 2 (see also Table 1 above):

Table 2
Attribute combination for a hypothetical transaction

Core	Restricted	Current	Entry	Benefit	Immediate
Y	Y	Y	Y	Y	N

Let us further suppose that the other attributes and opposites in Table 1 are not applicable to the transaction in question. A comparison of the Y/N row in Table 2 with a corresponding row in Table 1 reveals that the entity described by the above combination of attributes labelled 'Y' and 'N' is an asset, and the particular sub-entity is *cash and cash equivalents*.

Once the relevant entity and its sub-entity grouping have been identified through the use of the normative sub-framework, a classifier may then use the decision sub-framework developed and built around the entities defined in the last column of Table 1 above. A decision sub-framework has been designed as a flowchart structure, as suggested by Hollander, Denna and Cherrington (2000), and it further classifies entities and sub-entities of a transaction to show how such items find their way into a static sub-framework, which is the last part of the comprehensive framework proposed in this article. Note that only static frameworks have traditionally been the norm with regard to the classification of accounting information (Wolk et al., 2004).

We next define a decision sub-framework for each balance sheet entity. These entities are labelled *Assets, Equity and Liabilities*, which is in line with the fundamental accounting equation. An example of a decision sub-framework for the balance sheet entity *assets* is shown in Figure 1.

A decision sub-framework assists the classifier in finally classifying a transaction into a static sub-framework. It is pointed out above that most of the classification proposals put forward in the literature are, in essence, static structures. Examples of static frameworks are those currently in use and described by Cilliers, Mans, Grobbelaar, Stegmann, Van Schalkwyk and Wesson (2004), Wolk et al. (2004) and the AICPA (1994). These static frameworks simply show the final position of an item in the structure, and do not aid the classifier in understanding how the item found its way there. Both the normative and decision sub-frameworks proposed above are remedies for this shortcoming.

An example of a static sub-framework for assets is shown in Figure 2.

Finally, then, the three sub-frameworks, namely, *normative, decision* and *static* are combined into a comprehensive framework for the classification of accounting information. This framework is presented in Figure 3.

Figure 1
Extract from the developed decision sub-framework for assets

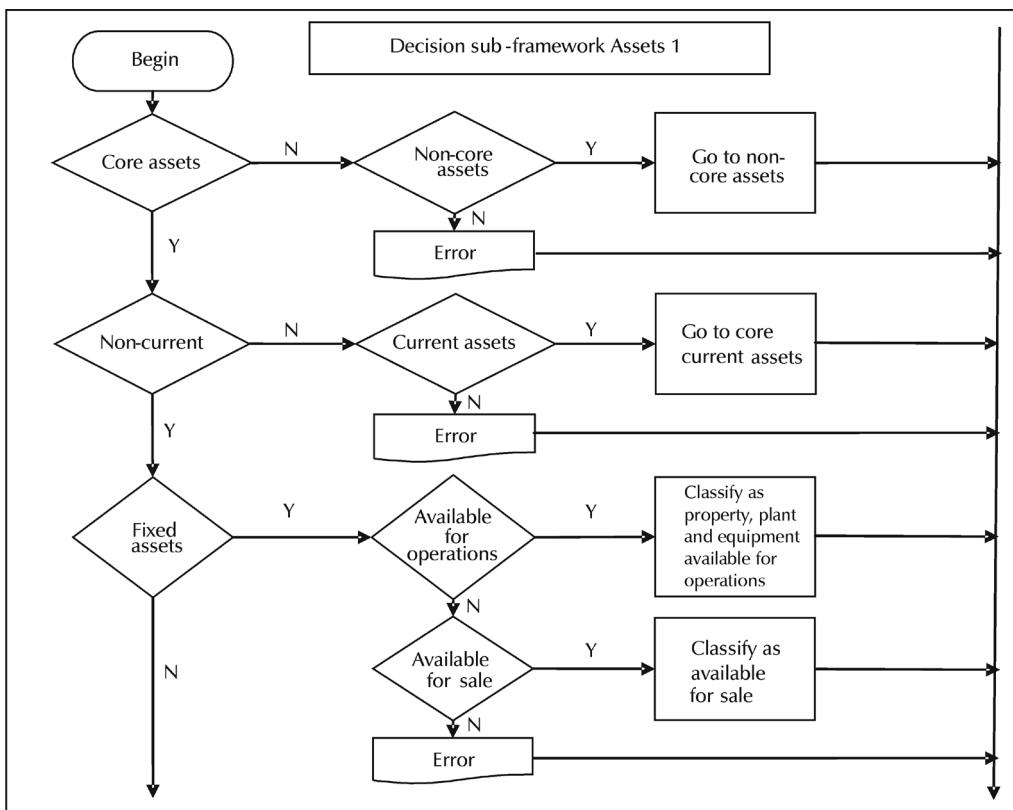


Figure 2
Extract from the developed static framework for assets

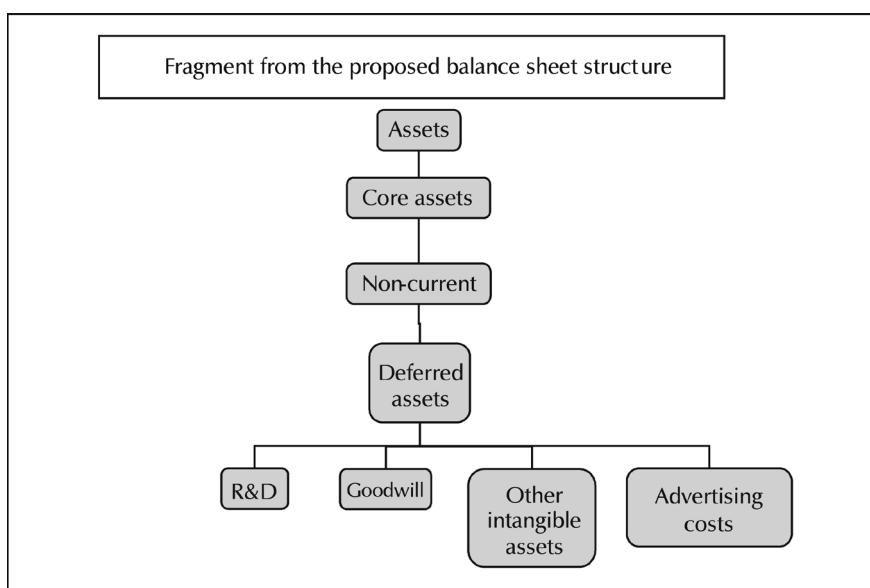
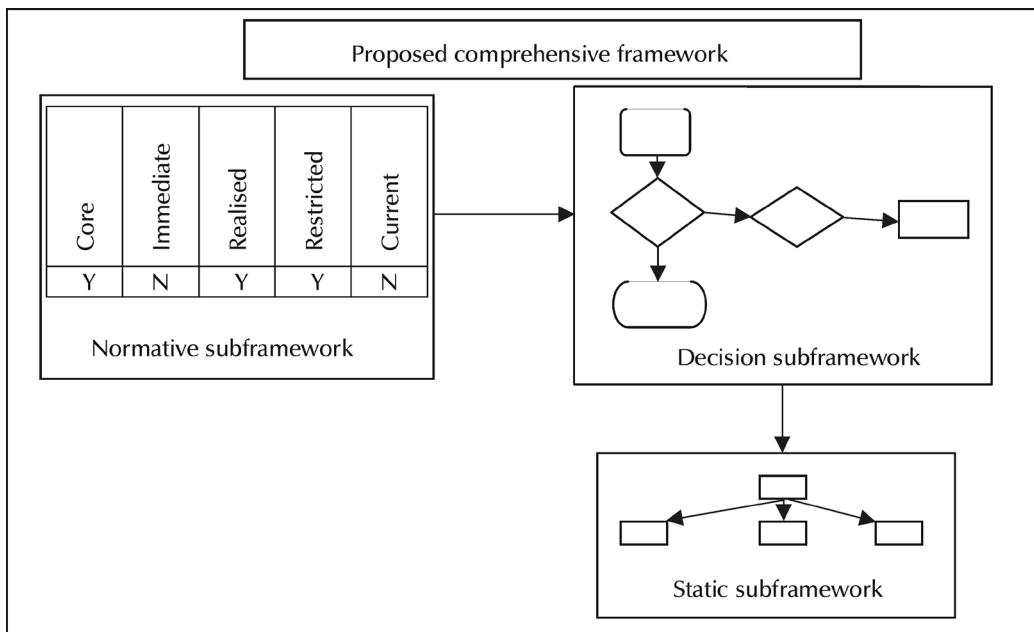


Figure 3
A comprehensive framework for accounting classification



8 Summary and future research

The classification of information created by accounting practices has to meet the requirements and demands of a changing environment. In this article, some of the issues surrounding the classification of accounting information in the balance sheet and the income statement were explored. The results from the literature review, the questionnaire and the content analysis all show shortcomings in current classification practices. A discussion of the way forward and a proposed classification framework taking attributes and time into consideration are also presented.

Future work should entail the development of a classification framework for the cash flow statement and the classification of intellectual capital and items with attributes of both equity and liabilities.

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