

3

Book entries and a new information perspective

3.1 Introduction

The previous chapter presented an introduction to book entries as a means whereby the often subjective observations made by an accountant may be entered into financial statements, resulting in a possible change in the information content portrayed in such statements. These personal observations are not unique to the accounting science, since according to the guidelines from the new science, the interpretations attached to a scenario by an observer may affect the outcome of a happening. Of particular importance in the arena of the quantum mechanics, which is part of the new science, is the issue of whether an observation that is made is real (objective) or not (subjective). These observations may also be dependent on the relationships among objects, for example if there are two objects (say two trains) of which one is stationary and the other moving. The observer in one of these trains, in the absence of an external reference point, will find it very hard to determine which train is the one that is moving (Hartzell, 1978). In a subject like physics it is possible for a scientist to predict the outcome of an experiment under controlled circumstances, however, in accounting the picture changes somewhat since such analogous experiments cannot be easily controlled owing to the fact that an accountant has to consider the effect of time, that is whether an expense is accrued in this quarter or the next, on the portrayed information over a number of quarters, thereby complicating predictions in the accounting world.

Following on the above, this chapter discusses a number of principles inherent to the new science. In particular issues regarding relationships, observation, reality, objectivity, prediction and time are addressed. These concepts are applied to the analysis of information contained in financial statements.

Over the years the rules governing the mechanisms (i.e. earnings management) aimed

at improving the bottom line of a company have changed. The important stakeholders have also changed. Previously companies focussed on fixed prices based on cost budgets as well as on market changes, while nowadays the emphasis is on innovation, speed, high quality service and the rate at which knowledge is improved and applied. In the new world reliable information and full commitment from a highly motivated work force are of extreme importance. This is the reality which modern companies have to deal with in order to remain competitive, and any delinquent behaviour in this regard from management may prove to be fatal. It is of paramount importance that information on which decisions from management are based is correct, reliable and free of bias.

Until now the work force has never been seen as an important part of the information value chain, and neither has the worth of information as a valuable asset of a company been acknowledged. This viewpoint is in line with the arguments presented by Hope and Hope (1996) who claim that, if managers continuously fail to recognise information as a valuable asset and a tool to improve the business rather than a means whereby control is exercised, they may well fail to see the benefits of developing better systems.

Two very important building blocks in accounting are information and communication. One of the aims of accounting is in fact to communicate (measured and validated) information intended to increase the knowledge of recipients of this information (Lee 1984). Such well communicated information may help to reduce the company's uncertainty about the future since the information may help management to make sensible decisions based on correct information.

3.2 Relationships

Relationships in accounting may be based on observations on the one hand and interactions on the other. Goldberg (2001) claims that a relationship 'exists' when the presence of a phenomenon or the activity of an occurrence is perceived or conceived by a unit of experience. When accountants carry out procedures in accounting, they

observe and attempt to measure relationships between these units of experience. Owing to its nature, accounting is rich in relationships, but whether this relationship is an accounting relationship or not is (according to the above Goldberg claim) determined by whether the relationship is measurable in an acceptable and recognisable unit.

One of the oldest relationships in accounting is the relationship between debtors and creditors. Humans have always traded, whether they traded corn for meat or, at a later stage money for a commodity, a transaction took place and therefore a relationship came into being (Goldberg 2001). As a rule there is a time lapse between the transaction and the actual payment, leading to a relationship of trust between the two parties. Another example of a relationship in accounting is one of ownership. There is a relationship between the owner and the asset and it is usually the case that the owner may do with the asset what he or she likes.

Relationships may also exist between variables. A variable represents an entity whose value may change over time and in accounting variables represent attributes of events or phenomena associated with particular objects, for example the earnings of a company (Ryan, Scapens and Theobald 2002). Another example of a relationship between two variables might be a ratio, for instance the relationship between long term debt and equity. Generally, empirical research has to do with the establishment of relationships between variables.

According to corporate governance or corporate finance, all stakeholders must be able to benefit from financial reporting. There are numerous relationships in this regard. A schematic presentation of some of the relationships within the accounting world appears in Figure 3.1.

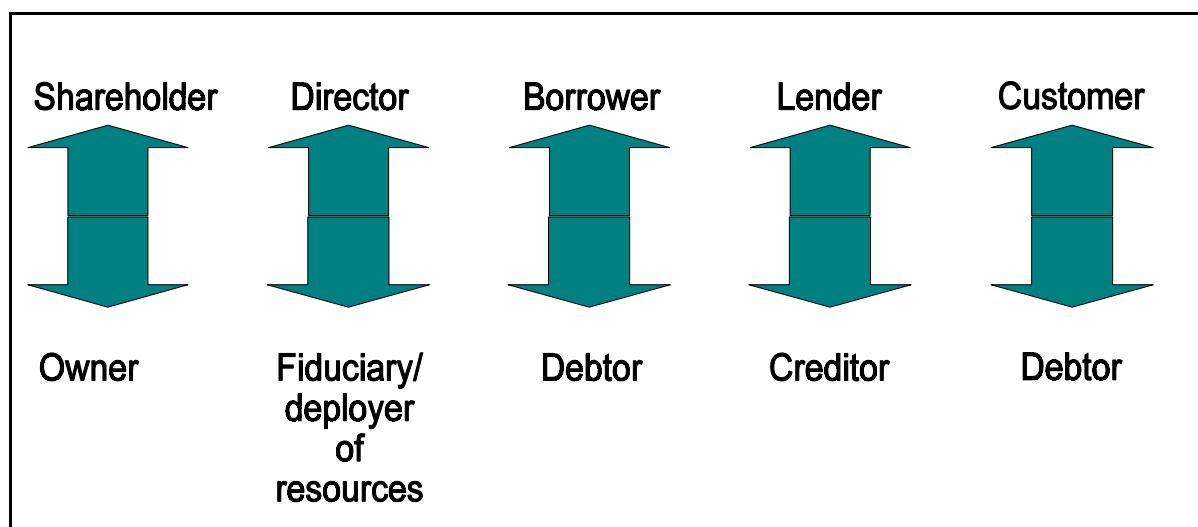


Figure 3.1 Relationships in accounting (Goldberg – adapted)

One of the aims of an accountant is to establish records and reports which reflect relationships between entities and, if possible, to measure these relationships. These relationships are the ‘accounting glue’ that facilitate the viewpoints from which various accounting processes are carried out (Goldberg 2001). For example, one of the challenges facing an accountant is to provide mechanisms whereby accounting procedures and products may express other relationships which have some social significance.

Very often the financial numbers in financial statements are concerned with and represent real people (customers) who determine the quality of products, services and client satisfaction. For example, the value of a large unit trust at the end of a quarter represents people since its value represents the total investment of a large number of investors. There is a close relationship between the different building blocks of companies. It is very important for companies to recognise, identify and nurse these relationships. If cash is the only measure of a company’s financial health, it is important to see the relationship between cash and satisfied customers (Hope and Hope 1996). Naturally, when a company experiences problems, it is important to look at the

Chapter 3: Book entries and a new information perspective

relationships between poor quality, lack of commitment, indifferent service and the company's results. If a company reveals the necessary information to the workforce, the before mentioned problems may be overcome. A happy workforce, that knows the goals of the company, may turn a company around. If there is a stronger emphasis on the person doing the work and less emphasis on the cost, the relationship between the quality of the product or service rendered and the cost will be much more favourable (Hope and Hope 1996). Managing people rather than objects may have a very positive effect on a company's bottom line. Sharing information in a company is crucial in today's marketplace and is one way of improving the different relationships in a company. However, if such shared information is influenced by book entries then the information may have a negative effect on the relationships within a company.

Accounting is rich in relationships and most of these relationships involve people. Also, the means of recording these is often the only available or the only acceptable evidence of a particular relationship (Goldberg 2001). If relationships are viewed in this way then the data recorded about such relationships are instruments of social records. Goldberg goes further by stating that the modern day accountant is faced with the challenge to express other relationships which have social significance as well. To reach this goal, appropriate means of measurement have to be invented, whether financial or non-financial, not usually available in the current accounting practices. Relationships that have social significance and are non-financial in nature may be based on subjective observations by an accountant, when measured. Therefore, the integrity of social relationships may differ from the integrity of accounting relationships.

Relationships in accounting are about a coherence between events. Furthermore, such coherence is a "man-made relationship" and it is derived from "the intention to enter into a venture that constitutes the basis for the relationship" (Goldberg 1974). It follows, therefore, that since these events are concerned with human activities, the resultant accounting records may display a relationship between these activities.

3.3 Observation

The Oxford dictionary defines the word 'observe' as the action "to see, to notice and to watch carefully" (Hornby 1981:578). The accountant is seen as an observer. As an observer, it is normally inappropriate for an accountant to express any form of judgement since it is not the function of an observer to judge. This viewpoint is further developed by (Goldberg 2001:17): "If and when an accountant does express any views about the goodness or badness, virtue or vice, integrity or peccability, it is as a moralist – perhaps a standard-bearer for a cause – and such views, as suggested, are more than observations of fact: they are based on a personal scheme of values". If an accountant's job description is augmented in this way then it adds an additional set of responsibilities for the accountant. Events in accounting are concerned with human activities. These events do not occur in nature and are therefore not natural phenomena (Goldberg 1974). Therefore, such events cannot be used in the same kinds of experiments or even observed in the same way as the phenomena observed by a natural scientist.

To be an observer one needs to be conscious, be awake and aware, as well as having a basic level of knowledge since the bodily senses and mental powers are being used (Hornby 1981:180). This can also be related to the conscience which helps one to make a decision between what is right and what is wrong. Often an observer has in mind a particular outcome of, for example, a forecast, and then actively embarks on a sequence of actions aimed at establishing that outcome. This phenomenon is also described by Polkinghorne (2002:91) when he claims that "... only the consciousness interpretation assigns a unique role to the acts of the conscious observer. (Part omitted). Even in the consciousness interpretation, the role of the observer is confined to making a conscious choice of what is to be measured and then unconsciously bringing about what the outcome actually turns out to be". Therefore, the outcome of a decision, strategic goal, etc. is often determined by the frame of reference and the mind set of the observer which may be very subjective and in turn may influence the integrity of

information.

Related to the act of “unconsciously bringing about an outcome” (Polkinghorne 2002:91) is the phenomenon of influencing an outcome rather than actually creating an outcome, also evident in studies of the new science. Quantum theory works towards an “observer-influenced reality” rather than an “observer-created reality” in the sense that what was not already in some sense potentially present could never be brought into being (Polkinghorne 2002). This means that the observer actually influences reality and that the observer cannot create reality. An observer interprets what he or she sees and thereafter assigns some meaning to the observation. The law of the conservation of energy, namely that the total amount of energy in an isolated system stays constant (Halliday, Resnick and Walker 1997) is another, even more fundamental, justification of the viewpoint that “reality cannot be created”. When an observer attaches personal interpretation to information, the integrity of information may be influenced.

According to the quantum theory one observes changes that take place in jumps, beyond the observer’s powers of precise prediction (Wheatley 1999). (Prediction is discussed in section 3.6 below). A further relationship between the integrity of accounting information and the new science is captured through an analogy with Heisenberg’s *Uncertainty Principle*, which states that an observer can measure and therefore get a fix on the *position* of a particle (e.g. an electron in the electron cloud surrounding the nucleus of an atom), or can get a measure of the momentum and thereby observe the *wave* of the same particle, but both these attributes cannot be measured simultaneously (Wheatley 1999).

Applying the above uncertainty principle to accounting reveals the following challenge: To measure the financial position of a company is rather difficult owing to the large number of parameters that may affect such a measurement. However, both the above attributes of the company cannot be measured simultaneously; also, no form of

measurement is ever neutral (Wheatley 1999) since any such measurement is influenced by the mind set and reference frame of the observer. Furthermore, as soon as one takes a measurement, information is somehow lost or loses its relevance. For example, suppose an accountant compiles a balance sheet for year-end purposes before all the relevant aspects of a certain transaction are known. The information in the balance sheet will then be timely, but reliability might be impaired and therefore the integrity of the information may be impaired. On the other hand, if the accountant delays the compilation of the balance sheet until such time as all relevant aspects of the transaction are known, then the information is highly reliable, but of little relevance to stakeholders since it might be too late to make an important decision.

The above state of affairs raises an important question also mentioned by Wheatley (1999), namely, if some information is inevitably lost through a measurement, then to what extent can a stakeholder trust such information to make intelligent decisions? Hence, either reliability or relevance is compromised when taking a measurement regarding, for example, the financial well-being of a company and this may also influence the integrity of the information. Since these two characteristics are essential to make accounting information useful to stakeholders (see section 2.3.5), any compromise of the validity of these two attributes may influence the integrity of the resulting information. At most, the accountant may be an observer of either the wave of fluctuations, or the financial position of the company, but not both at the same point in time.

3.4 Reality

Reality has a number of definitions, depending on which source is consulted. A *scientific* definition is given by David Heitzler (2003) under the heading “What is reality?” The definition states that “anything made up of matter or energy is real”. A more *objective* definition from the same source states that “anything that is not subjective is real”. Another definition of reality given by Hornby (1981:699) is “the quality of being real; real

existence; that which underlies appearance”.

Reality plays an important role in the quantum world and such reality is only revealed to an observer through an active construction in which such an observer participates (Wheatley 1999). A person only feels part of reality if he or she has the opportunity to interact with it personally. Information and ideas are but half of what is required to arouse reality. Wheatley (1999) furthermore claims that there is no objective reality and that the only reality that exists is what observers create through their contact and involvement with other people and events. It follows that reality is an awareness left to the individual's imagination. Reality and observation go hand-in-hand since reality is something that is observed by someone and then acted upon.

An accountant attaches personal interpretation to the information created in a company, hence such information is “measured” by the accountant and therefore part of the information is lost, that is, the information loses some of its potential. In fact, these personal interpretations are often confused with reality, as claimed by Wheatley (1999:67): “Reality is co-created by our process of observation, from decisions we the observers make about what we choose to notice. It does not exist independent of those activities”. Hence, what is real for one person because of what he or she experienced may not be real for someone else, simply because they have never experienced it. Therefore, one cannot *talk* people into reality if they have not experienced anything of that kind.

When collecting information and interpreting the information to make decisions, accountants (and other stakeholders of companies) select certain information, relevant in terms of their observations, interpretation and the Wheatley ‘awareness of reality’, and ignore other information that might have been relevant to the specific decision. Since this selection process is often based on a misplaced reality, it may lead to incorrect decisions being made. Inevitably, therefore, every observer will make different

selections based on their interpretations and perceptions of reality.

Reality plays a role in a number of aspects or concepts (Ryan *et al.* 1992):

- Reality as a concrete structure: reality characterised by objective 'facts', for example *real transactions*.
- Reality as a concrete process: reality is assumed to subsist within *relationships* and general laws which describe how things change.
- Reality as a contextual field of information: *human beings* (i.e. users of financial statements) are continually processing information, learning and adapting to their environment.
- Reality as a projection of *human imagination*: this is the extreme subjectivist position in which reality exists only in the individual consciousness that is, in human imagination.
- Reality as a symbolic discourse: we now see the world as comprising *human actors* who make sense of their reality through a process of social interaction and negotiation.
- Reality as a social construction: here the social world is re-created by the actors (i.e. *humans*) with every encounter, and reality is the accomplishment of individual sense-making.

The above concepts may be categorised into three groups, namely, the reality of *real transactions*, the reality of *relationships* between objects and variables, and the reality experienced by *humans* in their interaction with the world around them. All three these aspects may affect the information content in a company as follows: A real transaction differs from an artificial transaction which may affect the integrity of information. Relationships in a company may be affected by the information established in a company (e.g. a ratio is directly affected by the information contained in two variables – the numerator and the denominator) and the way an accountant (i.e. a human)

perceives reality, has a direct effect on whether such an accountant may resort to the use or misuse of book entries, thereby affecting the integrity of information in a company.

3.5 Objectivity

Objectivity can be described as “a state of being; impartial judgement; ability to free oneself from personal prejudice” (Hornby 1981:577). Given this definition of objectivity, the accountant has a very challenging task when preparing financial statements. Lee (1984) claims that when management’s intentions or expectations regarding the entity’s assets are conveyed in its financial statements, it is in conflict with the objectivity of the accounting process and the factual quality of the information being reported. Kam (1990) also stresses the importance of verifiable and objective evidence in supplying dependable information. Of course, objectivity is of the utmost importance when working with numbers which can influence decisions since both the outside and inside stakeholders of a company would certainly appreciate it if they knew that the accountant was objective in preparing the financial statements.

Following on the above claims about objectivity, Kam (1990) agrees that objectivity remains an illusive absolute since it alone does not lead to useful information. Objectivity is often contrasted with subjectivity, and while objective truth is something that is external to the human mind, it is hard to see how the concept of truth (i.e. being objective) can be discerned without using the human mind.

It is inevitable that the integrity issues surrounding book entries will come under the spotlight when objectivity is addressed. Determining values not derived from actual transactions (i.e. book entries) in which a company is a player, involves a great deal of objectivity. Confirmation from outside stakeholders is absent in these cases and therefore the values might be open to bias and manipulation. However, Kam (1990) points out that, if procedures for ascertaining values are made public and are generally

accepted by the profession, other competent, external stakeholders can verify these procedures, and hence the relevant values might be considered to be objective.

3.6 Prediction

To predict means to “say or tell in advance” (Hornby 1981:655). A question that naturally arises from this interpretation is: With an ever-changing world to contend with, how can one tell what is going to happen in advance? Information is ever changing – information difficult to control or manage.

In a scientist’s world prediction is part of empirical activity since a prediction can, in most cases, safely be made. An experiment is then conducted at a *certain point* to test the prediction (i.e. the hypothesis). If the outcome of the experiment supports the hypothesis, then the prediction is considered reliable in the light of the circumstances under which such prediction is made (Goldberg 2001). The accountant’s environment is, however, quite different. Unlike a scientist, it is usually not possible for an accountant to conduct an “experiment” at a particular time, mainly because an accountant has to work over a number of periods. For example, in figure 5.2 the accountant cannot conduct an experiment for five years (i.e. from 1997 to 2001), observe the outcome at the end of the fifth year, and then go back to alter the profits and losses accordingly – such values have already been published and decisions taken based on those values. Therefore, in accounting, prediction cannot be derived from the result of an experiment in a controlled environment, as for example in chemistry. However, there is an area where an accountant can conduct an experiment at a particular time, namely, altering spreadsheet values and immediately observing the result (e.g. budget spreadsheets).

To make a prediction one needs to have a certain amount of knowledge of what the outcome will be and what information has to be the input to the process. Making a prediction in accounting is a difficult task which carries certain responsibilities. For example, if an accountant makes a forecast, he or she already knows that some

important decisions based on such a forecast alone will be taken by management in the future. Hence, such predictions have to be accurate. Rate of exchange differences, inflation and even customer preferences might change quickly, leaving the accountant with little information to work with. Wheatley (1999) makes the point that in the quantum world, however, prediction and replication are not possible. Scientists substantiate these through the relationship between a system and an individual. The relationship will always be different and will always evoke different potentialities. When making a prediction (forecast), an accountant makes primarily use of book entries, however, as stated above, the quantum mechanics reveals that correct predictions are not possible. It follows that the integrity of information based on prediction may be impaired.

3.7 Time

When studying the financial statements of a company to measure the financial *position* of the company at a certain point, the accountant needs to focus on the actual happenings at that time, thereby stopping time artificially at a year-end to measure the company's position. At these year-ends book entries are used to portray non-events and may therefore influence the integrity of information. In accounting the introduction of these artificial time frames creates a problem since the balance sheet is a mixture of what has happened (real transactions) and what is going to happen (non-events captured by book entries). In effect the balance sheet has a forward-looking as well as a backward-looking aspect to it (Goldberg 2001). The income statement is also not an accurate barometer because the income statement contains book entries that represent transactions that occurred in other financial periods and may also represent transactions that may still occur for instance a contingent liability. The effect is therefore, once again, that book entries may influence the integrity of the information.

3.7.1 Accounting's time paradigm

Time plays an important role in accounting. From the above discussion on time, the definitions supplied in section 2.3 and the new information perspective, the following

figure resulted (Gouws 2003b):

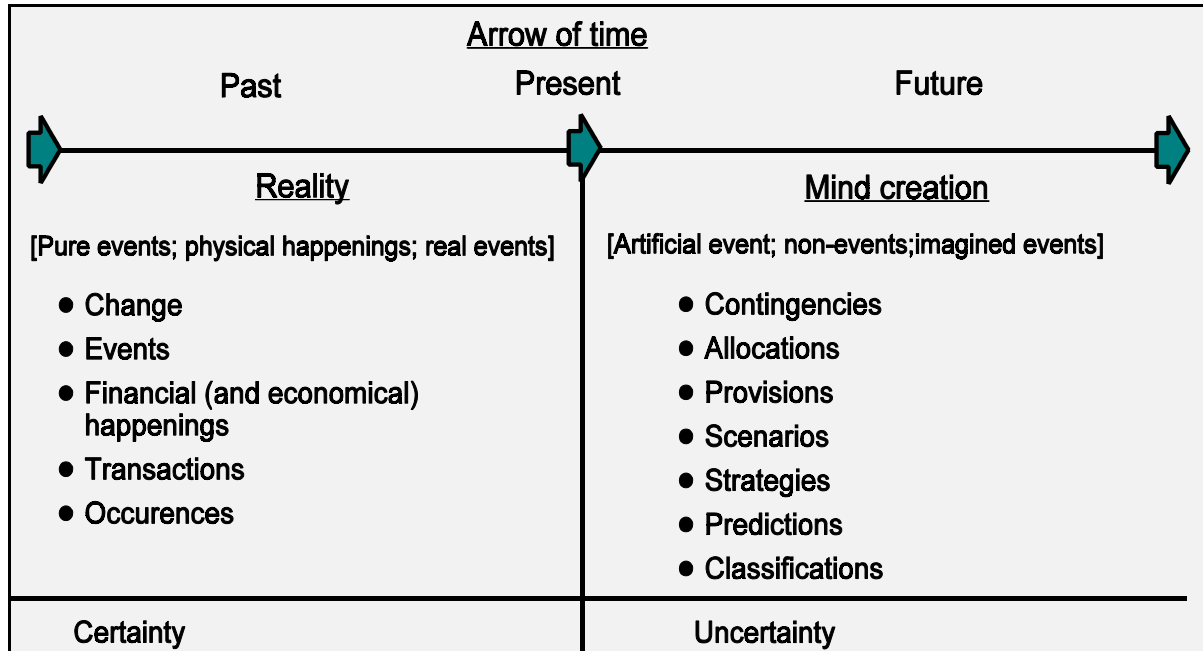


Figure 3.2 Accounting's time paradigm

The past is based on reality (i.e. transactions, events and occurrences that already took place) whereas the future is based on mind creation. The integrity of information based on reality and the integrity of information based on a creation of the mind may therefore differ in quality.

3.8 Conclusion

This chapter established a relationship between the new quantum physics and some phenomena known to accounting. Relationships among observations, reality, objectivity and prediction were discussed and pointed out to be all rather elusive concepts to define and work with, thereby complicating an accountant's task when having to give character to these concepts in financial statements.

Observations of a perceived reality indicated that such observations may be either objective or subjective, matching the idea of real and subjective transactions in

Chapter 3: Book entries and a new information perspective

accounting. In particular, the dilemma of an accountant in attempting to calculate both fluctuations in financial statements and the financial position of a company can be traced back to the problem experienced by theoretical nuclear physicists when trying to measure both the momentum and position of a particle at the same time.

This chapter also pointed out that the process of determining accounting values, not derived from actual transactions in which a company is a player, has a subjective side to it, for example the artificial stopping of time at a year-end to measure the company's position.

Another challenge for accountants is the need to make forecasts since important decisions will be taken by management in the future on the basis of such forecasts. These forecasts are necessarily based on observations made from a perceived reality and have to be objective and as accurate as possible.

In the next chapter the relationship between book entries and accrual accounting, some accounting assumptions, and the two major book entries, namely, depreciation provision and deferred taxation, are discussed.