Is management accounting theory breaking free from the shackles of neo-classical economics? A South African perspective

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Abstract

To the extent that management accounting is based on neo-classical economics, all decision-making is assumed to be rational, aimed at utility or profit maximisation and all circumstances influencing decisions are accepted as stationary. The approach excludes all social, cultural or historical considerations and is based on perfect information that is freely available. Neo-classical economics further assumes that minimum government intervention, which is regulated by competition, will result in maximum benefit for society as a whole. This paper aims to determine the extent to which management accounting *theory* has been based on these limiting assumptions and finds that emerging management accounting *theory* is increasingly based on alternative, more liberating foundations. This situation is in contrast to management accounting *education* in South Africa, which remains almost entirely based on neo-classical economics.

Key words

Management accounting theory
Management accounting education
Neo-classical economics

1 Introduction

Several authors, including Kelly and Pratt (1992); Hopper and Powell (1985); Neimark and Tinker (1986); and Scapens (1994), are of the opinion that management accounting is based on neo-classical economics. They regard its unrealistic assumptions as being inappropriate and explain the alleged irrelevance of management accounting (Johnson and Kaplan 1987) by means of reference to the fact that its development has for many decades been dominated by neo-classical economics. However, the aforementioned studies make no distinction between management accounting *theory* and management accounting *education*. This paper distinguishes between theory and education and suggests that although the views of the above authors might be valid regarding management accounting *education* in South Africa, management accounting *theory* is moving away from neo-classical economics.

The aim of this investigation is therefore to assess the extent to which management accounting *theory* has been influenced by neo-classical economics and to compare the extent of that influence to the influence on management accounting *education*, with a particular focus on education in South Africa. This paper firstly identifies the main characteristics and limiting assumptions of neo-classical economics for the purpose of the analysis. It then proceeds to review various approaches to management accounting theory in order to ascertain the extent to which these approaches are influenced by or are based on neo-classical economic theory. In order to make the review of the management accounting theory manageable, the perspectives are classified in terms of the framework proposed by Puxty (1993). The possible reasons for the difference in the extent to which management accounting theory and management accounting education are based on neo-classical economics are discussed, and the potential implications for management accounting are considered.

The term "neo-classical economics" may be interpreted to mean a positive theory of economic behaviour or a normative theory that prescribes a set of rules for optimum use of economic resources. It falls beyond the scope of this paper to investigate the merits of these opposing views (Blaug 1980; Truu 1988; Friedman 1953:3-46) and for the purpose of this investigation the term is taken to mean a positive theory in accordance with the mainstream approach.

2 The main characteristics and limiting assumptions of neo-classical economics

The essence and time of development of neo-classical economics is not perfectly self-evident (Colander 2000). It can be interpreted in various ways, but certain characteristics and assumptions form the core of what is usually referred to as neo-classical economics. These assumptions are discussed in the following section. The assumptions include 1) rational decision-making, 2) utility or profit maximisation as an incentive to action, 3) an analysis based on stationary circumstances as well as 4) a partial supply and demand equilibrium with a 5) limited focus. Additional characteristics include 6) perfect information, freely available at no cost, 7) the assumption that minimum government intervention will result in maximum benefit for the society as a whole on 8) the premise that it is regulated by a state of much free competition.

In terms of neo-classical economics, the equilibrium (optimum) price is established at the point of intersection at which supply is equal to demand (Barber 1967:174; Roll 1938:460; Marshall 1920:345). Supply is measured in terms of compensation for the efforts and sacrifices that are related to production (Marshall 1920:348), whilst demand depends on the diminishing marginal utility of a rational consumer (Marshall 1920; Barber 1967:171). In constructing the supply and demand curves, neo-classical economists make several limiting assumptions.

One of the assumptions of neo-classical economics is that the rational consumer is believed to balance optimally pleasures and pains, utilities of different goods as well as present and future needs (Barber 1967:170; Oser and Brue 1988:214). Simon (1959) questioned the assumption of rationality and argued that economic agents are only able to exercise "bounded rationality", which means that individuals are unable to understand the world fully, identify all possible options and process all available data. Similarly, Ahmed and Scapens (2000:168) suggest that economic agents operate with a form of institutional (habitual) rationality rather than global rationality.

Another key assumption of neo-classical economics is that decision-makers pursue their own advantage in order to achieve maximum satisfaction (Barber 1967:171; Marshall 1920:93). In keeping with his stance on bounded rationality, Simon (1959) questions this supposition of maximum satisfaction and suggests that decision makers are content to choose an action that will lead to a satisfactory return rather than to a maximum return. Shiozawa (1999:23) concurs and points out that with the number of commodities available, it is impossible for any consumer to maximise his/her utility.

Robinson (1933:6) suggested profit maximisation as an alternative motive for economic action, instead of the maximization of satisfaction or utility. According to her, "any individual, in his economic life, will never undertake an action that adds more to his losses than to his gains, and will always undertake an action which adds more to his gains than his losses" (1933:6). This principle culminated in the theory of the firm that accepts profit maximisation as the main aim of the organisation (Mansfield 1982:141). However, the way in which profit maximisation should be interpreted, is problematic where management acts as an agent on behalf of the owners (Samuel, Wilkes and Brayshaw 1995:4; Drury 1996:317-323). Machlup (1967:5) explains the situation as follows: "whereas owners would run their business chiefly with a view to a maximum of money profits, managers run it with several supplementary and partly competing goals in mind". These goals may include maximum sales revenue (Baumol 1959:50), maximising their own utility (Williamson 1964:1033) or sales growth (Baumol 1967:89).

To meet the requirements of the law of diminishing marginal utility, the analysis has to be limited to a moment in time only, because a lapse of time can result in a change in taste or fashion, which can cause a consumer to be willing to pay more for the next unit than for the previous one (Marshall 1920:94, 342, 461). In keeping with the premises of the stationary state, Marshall (1920:109) assumed constant real incomes for the purpose of constructing the demand curve, which is interpreted by Hicks (1946:117) as being a continuance of current tastes, techniques and resources. It will therefore be unnecessary to distinguish between price expectations and current prices, and inflation is effectively ignored.

Neo-classical economics is based on the assumption that, in the long term, the market tends towards an equilibrium price at which supply equals demand (Barber 1967:174; Roll 1938:460; Marshall 1920:345; Fellner 1960). Techniques modelled on neo-classical economics are assumed to generate one, determinate, optimum solution (Samuels 1990:9). At the point of intersection between the supply and demand curves, the amount produced has no tendency to be either increased or decreased (Marshall 1920:345,471-472). In contrast, institutionalists emphasise the principle of cumulative changes in terms of which maladjustments are a normal part of economic life (Oser and Brue 1988:363-364).

In terms of neo-classical analysis, problems are investigated by focusing on only a limited number of variables, temporarily isolating the central nerves of the economic process (Marshall 1920:366). Other variables are presumed to remain equal and constant (*cœteris paribus*), causing economics to become largely detached from historical events and specific cultural and social circumstances (Barber 1967:166-67; Oser and Brue 1988:213; cf. Robinson 1933:15). This predominantly micro-economic approach to analysis also accepts that a study of the behaviour of the individual economic agent will reflect the behaviour of the collective society, and interrelationships are ignored (Marshall 1920:18; Barber 1967:164; Samuels 1990:10).

The availability of perfect and free information forms an integral part of the neo-classical model (Samuels 1990:9; Ashton, Hopper and Scapens 1991:4), but Mattesich (1980:218) reminds us that information is not for free. Although Marshall (1920:347) acknowledged that “we cannot foresee the future perfectly”, no specific adjustments were made to allow for uncertainty or risk in the equilibrium analysis. Keynes disagreed and suggested that “we have only the vaguest idea of any but the most direct consequences of our actions” (Keynes 1937:216; Backhouse 1985:382-383).

Neo-classical economics relies on the market process to ensure an optimum and equitable distribution of resources among all the members of society, whilst they are pursuing their own individual interests (Oser and Brue 1988:214,272; Marshall 1920:712-713). However, the Cambridge (UK) school of thought questioned the validity of this assumption when the School found a discrepancy between the behaviour that benefits the individual firm and the actions that benefit the economy as a whole (Harcourt 1995:41-46). Similarly, the institutionalists suggest that market prices are inadequate indices of individual and social welfare and that unregulated markets do not lead to the efficient and just allocation of resources. They propose government intervention in economic and social affairs (Oser and Brue 1988:364). This is also the view of the Keynesian school of economic thought that suggests that the government should intervene actively through fiscal and monetary policies to promote full employment, price stability and economic growth (Oser and Brue 1988:364, 413).

The classical, marginalist and initial neo-classical economic approaches were based on the premise that perfect competition in the market would correct suboptimum situations and lead to the optimum and appropriate allocation of productive resources (Ashton *et al* 1991:7; Oser and Brue 1988:316). However, Sraffa (1926) pointed out that, in the long run, neither increasing nor decreasing returns to scale is compatible with perfect competition.

3 Management accounting theory

There are a wide variety of views regarding the purpose and practice of management accounting, and ideas have been borrowed from several other disciplines in order to facilitate a more comprehensive understanding of the subject. There is no universally accepted classification of the various views, but Hopper and Powell (1985) based a classification on the sociological framework of Burrell and Morgan (1979), and divided management accounting approaches into four paradigms, namely functionalism, the interpretive approach, radical structuralism and radical humanism. Puxty (1993) followed an alternative, but similar, classification by arranging management accounting perspectives into five frameworks. These frameworks are the traditional paradigm, systems perspective, interpretative approach, radical critique and, finally, universal abandon (post-modern). Because the Burrell and Morgan (1979) classification was originally intended for sociological rather than management accounting approaches, the Puxty (1993) framework was preferred and applied in this study. The following table summarises the extent to which the various management accounting approaches are influenced by neo-classical economics. The analysis is based on the main assumptions of neo-classical economics that are discussed in section 2. The abbreviations are explained below the table.

Extent of influence of neo-classical economics on management accounting theory

	Traditional			Systems				Interpretative		Radical			Post--modern	
Neo-classical assumptions	**In**	**Ag**	**Beh**	**Tra**	**Con**	**Plu**	**Ins**	**Sym Int**	**Str**	**Dia**	**Lab pro**	**Hab**	**Fou**	**Dec**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
Rationality	√	√	√	√	√	X	X	X	½	X	X	√	X	X
Utility/profit maximization	√	√	√	√	√	X	X	X	X	X	X	X	X	X
Stationary circumstances	√	√	√	√	√	√	X	X	X	X	X	X	X	X
Equilibrium	√	√	√	√	√	√	X	X	√	X	X	X	X	X
Limited focus	√	√	√	½	½	½	X	X	X	X	X	X	X	X
Free information	X	√	√	√	√	X	X	X	n/a	X	√	n/a	n/a	X
Minimum govt Intervention	√	√	√	√	√	√	X	√	√	X	X	X	X	X
Much free competition	√	√	√	√	√	√	X	√	√	X	X	X	X	X

Key to the above table

1 = Information economics; 2 = Agency theory; 3 = Behavioural accounting; 4 = Transaction-cost theory; 5 = Contingency theory; 6 = Pluralism; 7 = Institutional perspective; 8 = Symbolic interactionism; 9 = Structuration theory; 10 = Dialectical approach to social analysis; 11 = Labour-process approach; 12 = Habermas; 13 = Foucauldian perspective; 14 = Deconstruction

√= Complies with the neo-classical economic assumption; X = does not comply with the neo-classical economic assumption; n/a = issue of compliance of neo-classical assumption is not applicable; ½ = complies halfway with the neo-classical assumption

It is evident from the above table that, although some of the approaches to management accounting theory have been influenced by neo-classical economics, several of these perspectives are not restricted by its limiting assumptions. The traditional framework is almost entirely based on neo-classical economics, whilst the systems framework is divided. Some of the systems-approach theories are predominantly based on neo-classical economics, whilst pluralism and the institutional framework in particular appear to be moving away from neo-classical assumptions. The approaches that are classified under the interpretative, radical and universal-abandon frameworks are almost entirely free from the restrictive assumptions.

The background and philosophical underpinning of neo-classical economics and its influence on the approaches are explained in the discussion that follows. Whilst the examination of the background and philosophical foundation is based on a literature study, the extent of the influence of neo-classical economics is derived from an analysis performed for the purpose of this investigation.

3.1 The traditional paradigm

Most of the contents of conventional management accounting texts are in this category. This approach has a technical orientation; it is problem-centred and focuses on the organisation as a closed system. It is rationalistic, prescriptive, functionalist, a historical, reductionist and positivist, and claims to be apolitical (Puxty 1993). The views that are normally associated with traditional management accounting include information-economics (Drury 1996), agency theory (Jensen and Meckling 1976) and behavioural accounting (Siegel and Ramanauskas-Marconi 1989).

3.1.1 Information economics

In terms of information theory, the reason for the existence of management accounting is the designing of efficient information systems to serve certain managerial needs. This view is widely held and also appears in most conventional management accounting textbooks as the reason for the existence of the subject (Drury 1996; Horngren, Foster and Datar 1994; Hayes 1977:22). The information-economics theory goes further and asserts that information has an economic value and suggests that a cost-benefit analysis should be undertaken when deciding whether to produce additional information (Scapens 1991). Whereas, previously, neither the difficulty of obtaining information nor the associated costs were explicitly recognised in decision-making models, the information-economics approach attempts to quantify the cost of obtaining information and also seeks to place a value on the information obtained in the context of a specific decision (Scapens 1991).

Interpretation: Influence of neo-classical economics

The underlying assumption of this perspective is that information will enable managers to take rational, optimum, deterministic decisions that should maximise profits. It also accepts that information will be available, but attempts to take the cost of information into account. In terms of the approach, decision-makers take a limited perspective that ignores any social, cultural or historical influences on the organisation. The circumstances that influence demand are considered to be stationary, and supply and demand are assumed to tend towards an equilibrium price. This is in accordance with the main assumptions of neo-classical economic theory. It can be accepted that, in the absence of a specific rejection of the status quo (cf. 3.4), this view assumes minimum government intervention as well as much free competition.

3.1.2 Agency theory

In the agency model of the firm, one or more principal(s) hire one or more agent(s) to perform some service on their behalf, and it normally involves delegating some decision-making authority to the agent. If both parties are utility maximisers, it is probable that the agent will not always act in the interest of the principal (Baiman 1982; Jensen and Meckling 1976). The principal can limit suboptimum and harmful actions of the agent by providing incentives for the agent, incurring monitoring costs and, in some instances, incurring bonding costs to ensure that the principal is compensated if the agent acts in a harmful manner (Jensen and Meckling 1976:308). These costs are referred to as agency costs (Samuel, Wilkes and Brayshaw 1995; Jensen and Meckling 1976). The management accounting system plays an important role in the monitoring process (Watts and Zimmerman 1986:196-197). Agency theory therefore explains the demands for management accounting information in terms of the need to facilitate efficient contracting between principals and agents (Jensen and Meckling 1976:323).

Interpretation: Influence of neo-classical economics

With regard to neo-classical economics, agency theory retains the assumption of rational utility maximisation. The analysis is removed from the historical, cultural and social context and focuses on a limited number of variables. It also seeks to find optimum solutions. Demand is considered to be stationary and tending towards an equilibrium price, whilst information is available at no cost and without uncertainty. The assumptions of minimum government intervention and much free competition are not specifically referred to or rejected, and it can therefore be assumed that they are implicitly accepted (cf. 3.4).

3.1.3 Behavioural Accounting

During the 1960s and 1970s a large proportion of management accounting theory was aimed at understanding the relationship between human behaviour and the accounting system. This movement in accounting theory is generally referred to as behavioural accounting. According to Siegel and Ramanauskas-Marconi (1989:4) behavioural accounting addresses three general areas, namely the effect of human behaviour on the design, construction and use of the accounting system; the effect of the accounting system on human behaviour; and, thirdly, methods to predict and to strategise to change human behaviour. Macintosh (1994:ix) focuses on the latter of the three aspects and views motivation as the golden thread that runs through most theories related to behavioural accounting theory. Research in these areas employ knowledge gained from psychology, sociology as well as social psychology.

Ijiri as well as Libby (in Hopper and Powell 1985) investigated the functioning of information processing by individuals in order to identify the factors that affect the quality of human decision-making. According to Libby (in Hopper and Powell 1985) the options for improving accounting decisions lie in either changing the way information is presented or educating the decision-maker in better methods of processing information or replacing him or her with a model. Argyris published a seminal article in 1953 on human problems in respect of budgets, introducing the problems related to the effect of accounting systems on human behaviour (Siegel and Ramanauskas-Marconi 1989:8). Theories of motivation incorporate those of Maslow in 1954; Herzberg *et al* in 1959 as well as the expectancy theory of Lawler in 1973. The designing of reward systems as a key to motivating subordinates was also discussed by Hopwood in 1974 (Emmanuel, Otley and Merchant 1990).

Interpretation: Influence of neo-classical economics

As far as neo-classical economics are concerned, behavioural accounting theory retains most of the main assumptions, namely the process of rationally seeking optimum solutions that will result in maximum utility or profit. Although it considers the influence of accounting on the behaviour of personnel, it retains a limited focus in that it does not consider the historical, cultural or social context of decisions. Behavioural accounting does not refer to the influence of time on demand and implicitly accepts the assumption of a tendency towards an equilibrium price that is brought about by supply and demand forces. Information is assumed to be available at no cost and without uncertainty. As a result of the absence of any explicit stance, it is accepted that this view assumes minimum government intervention as well as much free competition (cf. 3.4).

3.2 The systems perspective

In terms of the traditional paradigm, problems or decisions are viewed in isolation and only the key variables or central nerves of the problem are considered, whilst other influences or variables are presumed to remain equal and constant. The systems approach attempts to overcome this limited focus by aiming to view every problem as a whole (holism) and by breaking down barriers among traditional scientific disciplines. Furthermore, this approach focuses on the interconnectedness of what is being considered (Puxty 1993:31). With regard to accounting, the systems approach suggests that it should be viewed in an organisational context. However, human nature continues to be viewed as being controllable, and systems are designed to increase efficiency through improved understanding and control. Management accounting perspectives that are normally classified under this framework include transaction-cost theory, contingency theory as well as pluralism. Another perspective that is categorised with this section is the institutional framework of Scapens (1994). Although this perspective does not conform to all the characteristics of the systems approach, it does take a holistic view.

3.2.1 Transaction-cost theory

Transaction-cost theory is based on the premise that the concentration of diverse economic activities within large corporations is viable only when the cost of managerial co-ordination of these activities is less than the cost of the same transactions being co-ordinated by the market. The costs of co-ordination are called "transaction costs". Management accounting derives its existence from its ability to facilitate this co-ordination for internal transactions, which is otherwise carried out by the market (Johnson 1983; Williamson 1975).

Interpretation: Influence of neo-classical economics

Although transaction-cost theory takes a more holistic view (of the organisation) than the approaches classified under the traditional paradigm, the theory retains a limited focus in that it does not consider the historical, cultural or social context of decisions and does not refer to the influence of time on demand. Decision-makers in organisations rationally seek to maximise the profit of the organisation by internalising transactions, and it is indirectly assumed that it is possible to determine optimum solutions. A long-term equilibrium price is assumed. In the absence of any specific rejection of the *status quo* (cf. 3.4), information is taken to be available at no cost and without uncertainty, and the assumptions of minimum government intervention and much free competition are accepted,.

3.2.2 Contingency theory

Contingency theory is based on the assumption that there is no universally appropriate accounting system for all organisations in all circumstances (Otley 1980:413). The features of a suitable accounting system depend upon the specific circumstances in which the organisation finds itself, and research based on contingency theory attempts to match the design of the accounting system with the circumstances of the organisation (Otley 1980:413). By contrast, the emphasis of much of the management accounting research published between the late 1950s and the mid 1970s was on the development of models that were intended to be suitable for a wide range of organisations (Ashton *et al* 1991:4). Emmanuel, Otley and Merchant (1990:60-66) discuss the factors or organisational circumstances that could influence the choice of an appropriate accounting system under the headings of environment, technology, size, strategy and culture. Although several studies have been undertaken to identify the potentially influential factors, little substantive evidence has been obtained to suggest a direct match between influential factors and appropriate accounting system design (Emmanuel, Otley and Merchant 1990:60-66; Hopper and Powell 1985:441; Otley 1980:419).

Interpretation: Influence of neo-classical economics
The underlying principle of contingency theory can be traced to the biological science of evolution, namely that firms that adopt organisational configurations that match their circumstances will survive, whilst those that do not, will fail. Nonetheless, the majority of neo-classical economic principles continue to be applicable. Although contingency theory takes a holistic view of the functioning of organisations, it subscribes to rational, profit-maximising decision-making and fails to consider the historical, cultural and social context of organisations. The theory accepts that information is available at no cost, and without uncertainty and does not specifically allow for the effect of time on information or question the existence of a long-term equilibrium price. As a result of the absence of an explicit stance to the contrary, it is accepted that this view assumes minimum government intervention as well as much free competition (cf. 3.4).

3.2.3 Pluralism

In terms of pluralism, organisations are viewed as comprising sectional groups that have divergent and often mutually inconsistent goals. Common purpose only exists when groups are interdependent (Hopper and Powell 1985). Control is achieved by maintaining a set of rules that permit bargaining between the groups and the aim is to contain rather than avoid conflict, allowing for maximum freedom (Hopper and Powell 1985:443).

Pluralistic studies can be valuable in understanding management accounting practice, because it recognises that accounts and accounting rules are not necessarily objective, rational and neutral, but are rather based on sectional interests and are arrived at by means of political processes (Hopper and Powell 1985). These studies have revealed that management accounting information may influence the relative strength of participants in organisations, and information may be rationed or manipulated to secure personal ends (Pettigrew in Hopper and Powell 1985). Other pluralistic studies have revealed that accounting information serves to reassure decision makers and to legitimise their actions, rather than to reflect an underlying reality (Burchell, Clubb, Hopwood, Hughes and Nahapiet 1980)

Interpretation: Influence of neo-classical economics
Pluralism therefore departs from neo-classical economics in that it allows for decision-making that is not rational and that takes a more holistic view.

Rather than assuming a unifying goal of profit maximisation for the organisation, pluralism recognises sectional and opposing interests. The conflicts in interest may also have a negative influence on the availability of information. However, it does not address the historical, cultural and social context of organisations, nor does it consider the influence of time on demand or dispute the assumption of an equilibrium price brought about by supply and demand forces. It is accepted that pluralism assumes minimum government intervention as well as much free competition in the absence of any rejection of the *status quo* (cf. 3.4).

3.2.4 Institutional perspective

Scapens (1994) views accounting practices as institutions or routines that enable organisations to reproduce and legitimise behaviour and to achieve organisational cohesion. Institutions are patterns that define what are proper and expected modes of action in a group or a society. They provide a way of coping in a complex and uncertain world, and enable individuals to make sense of their own actions and of the actions of others (ibid.). Management accounting can be viewed as a routine or as an institution of organisational behaviour. For example, budgets and reports are prepared in a regular and routine fashion.

Interpretation: Influence of neo-classical economics

The framework described above provides a "way of seeing", and possibly of understanding, management accounting practice, as an alternative to using the neo-classical economic approach (Ahmed and Scapens 2000; Scapens 1994). The institutional perspective makes the institution its focus of analysis, rather than the rational maximisation of the behaviour of individual decision-makers. Although it recognises that firms are profit seekers, it questions the narrowness of the profit-maximising assumption and suggests that, although individuals are conceived as rational in a general sense, they can not be deemed to be rational in the narrow sense of maximising within a framework of known alternatives. Furthermore, the institutional perspective recognises that knowledge is subjective and that agents create their own realities. However, it argues that the acquisition of knowledge is not an individual experience, but a social one (Scapens 1994). Information is therefore not taken to be readily and objectively available. Institutional economists focus on economic change, rather than on economic equilibrium and stationary circumstances. It furthermore recognises the role of social institutions in co-ordinating economic activity instead of the market (Scapens 1994; Ahmed and Scapens 2000; Burns and Scapens 2000). The approach recognises the importance of knowledge of human behaviour within its cultural, social, historical and institutional context (Scapens 1994:306-307) and can therefore not be deemed to have a limited focus. By rejecting the market as an efficient co-ordinator of economic activity, it also implicitly rejects the assumptions of minimum government intervention and much free competition.

3.3 The interpretative framework

In contrast to the traditional and systems views that accept that people are formed and constrained by the social world that they inhabit, interpretative (or natural) approaches primarily focus on peoples' perception of reality and on individual meaning (Hopper and Powell 1985:446; Belkaoui 1992:515; Hopper, Storey and Willmott 1987). People constantly create their social reality in interaction with others and the aim of the interpretative approach is to analyse such social realities in the ways in which they are socially constructed and negotiated (Hopper and Powell 1985:446). The uniqueness of each situation is recognised and the approach rejects the positivistic notion that only those things that can be observed, count.

This approach is rooted in hermeneutics (Puxty 1993) and incorporates various approaches, including cognitive anthropology, symbolic interactionism, grounded theory as well as ethnomethodology. Cognitive anthropology focuses on the individual's communicative competence within a particular culture, i.e. how actors communicate (Jönsson and Macintosh 1997), whilst symbolic interactionism (or interactionist sociology) pays special attention to the concepts and symbols that actors use to conduct their social life. It is therefore concerned with what actors are thinking and how they make their actions meaningful. Grounded theory (Parker and Roffey 1997) is similar to symbolic interactionism, but, whereas interactionists regard observation of human interaction to be their basic source of data, grounded theory generally includes additional sources such as interviews, written reports and related documents. Ethnomethodology has as its particular focus the everyday social practices of actors and how they choose to do what they do (Chua 1988; Jönsson and Macintosh 1997).

In this study, specific attention was given to symbolic interactionism, because this is the interpretative approach that is mostly applied for the purpose of management accounting theory (Chua 1988:74; Puxty 1993:60). Whilst structuration theory (Giddens 1984) could be categorised under radical critique, because it deals with the effect of domination, or even under universal abandon (cf. Macintosh and Scapens 1990), it is classified in this section as a result of the fact that it specifically considers the objective-subjective tension.

3.3.1 Symbolic interactionism

In terms of symbolic interactionism, reality is constructed through the interactions of self-reflective individuals and is mediated through symbols (Chua 1988:60). The way we perceive ourselves is based of the way we think others see us. Blumer (in Chua 1988:60) suggests the following three central propositions of symbolic interactionism: Firstly, human beings act towards things in accordance with the meaning those things have for them. Secondly, the meanings that people attach to things depend on social interaction. Meanings are therefore not intrinsic properties of things, and meaning is not a result of my psychological make-up, but rather depends on the way I see others acting towards me regarding this aspect. Thirdly, individuals use an interpretative process to modify and handle symbols or signs in order to form meanings (Puxty 1993:61). Interactionist research asks "how" questions rather than "why" questions. It therefore aims to find out how a social experience is organised, perceived and constructed, rather than to investigate causal explanations of social phenomena. This form of research is more concerned with understanding than with control. The design of efficient and effective management accounting systems becomes less important, because the aim is the understanding of social interaction. Interactionist research also rejects the possibility that observations can be generalised across non-observed populations, but proposes a search for universal explanations (Chua 1988:61).

Interpretation: Influence of neo-classical economics

Symbolic interactionism rejects the simplistic approach of deeming all decision-makers to be rational and maximisers of utility or profit that believe in an optimum equilibrium price brought about by supply and demand forces. In terms of symbolic interactionism, true meaning can only be understood in its context and therefore the approach considers the social, historical and cultural circumstances of a decision. Interactionists deny the possibility that perfect objective information can be freely available at no cost, but rather suggests that "information" that is used by decision makers depends on the meanings formed by them, which in turn depends on the individual's interaction with other persons. Because interaction and the forming of meanings is an ongoing process, the possibility of deeming the circumstances that influence the decision to be stationary can be ruled out. It is accepted that symbolic interactionism assumes minimum government intervention as well as much free competition in the absence of any rejection of the status quo (cf. 3.4).

3.3.2 Structuration theory

Structuration theory is essentially a sensitising device that is concerned with understanding the relationship between human activities and the structuring of social systems (Giddens 1984; Macintosh and Scapens 1990:456). With structuration theory, Giddens (1984:2) aims to do away with the separation of functionalist and structuralist thought on the one hand and the hermeneutic humanism on the other. He therefore subsumes two fundamentally antagonistic theoretical positions and suggests that social science should not be limited to either societal totality (objectivist) or the experience of the individual agent (subjectivist), but should embrace social practices ordered across time and space (Giddens 1984:2). In terms of this notion of duality of structure, the structural properties of social systems are both the medium and the outcome of people's practices (Giddens 1984:25). Furthermore, Giddens (1984:3) holds that human beings are purposive and rational agents that know and can explain the reasons for their activities, even though they do not always understand their motives.

Giddens (1984) suggests three dimensions of social structure, namely signification (meaning), domination (power) as well as legitimation (morality), which are inextricably linked. Macintosh and Scapens (1990:460) explain this framework by applying it to management accounting. The rules, concepts and theories of management accounting comprise the *signification structure* by which activities are interpreted and communicated. It provides managers with a means of understanding the activities of their organisations and allows them to communicate meaningfully about them. Command over the management-accounting system is a resource that can be used to exercise power and exact accountability and it is therefore an important facility in the *domination structure* (Macintosh and Scapens 1990:461). The *legitimation structure* refers to the set of values about what is to be regarded as virtue and what is to be regarded as vice; what is to count as important and what is trivialised. Management accounting systems communicate a set of values and ideals about which actions should be awarded and which actions penalised. It is therefore not an objective and neutral means of conveying economic information to decision-makers (Macintosh and Scapens 1990:460).

Interpretation: Influence of neo-classical economics

This dual nature, which incorporates two opposing theoretical positions, impacts on the extent to which structuration theory incorporates the characteristics of neo-classical economics. The theory subsumes the subjective interpretative position as well as the view that social life is determined by impersonal, objective structures. Structuration theory is not concerned with finding rational and optimum solutions that could lead to the maximisation of utility or profit, but rather an understanding of the relationship between human activities and the structuring of social systems. However, it does accept that the agents (individuals that act in social settings) will usually be able to rationalise (explain) the grounds for their actions, even if they are unaware of the consequences (Macintosh and Scapens 1990). Whether information is available, perfect or uncertain is therefore not an integral part of the discussion. The approach is concerned with the social context of human activities and can therefore not be deemed to have a limited focus. The fact that agents are deemed to be involved in a continuous flow of action rather than in a series of acts is an indication that the effect of changes as a result of time is taken into consideration. In the absence of any information to the contrary, it is tentatively accepted that structuration theory does not reject the assumptions of a self-equilibrating free market system or much free competition (cf. 3.4).

3.4 Radical critique

Radical perspectives on management accounting reject the *status quo* and question the legitimacy of capitalism as a fair system for society, whilst traditional systems and interpretative perspectives implicitly accept and support the current social relationships by not questioning the distribution of power and class relationships (Hopper and Powell 1985:450; Arrington and Francis 1989:2). Much of the work of radical theorists is based on Marxist theories and, accordingly, these theories suggest that structural inequality characterises society and that conventional accounting systems are an integral part of the capitalist society (Hopper and Powell 1985:450). Approaches to facilitate a better understanding of management accounting that are normally classified under this framework include the dialectical approach to social analysis (Neimark and Tinker 1986), the labour-process approach (Hopper, Storey and Willmott 1987) as well as the approach suggested by Habermas (1983).

3.4.1 The dialectical approach to social analysis

The dialectical approach to social analysis (Neimark and Tinker 1986) examines the relationship between organisations and society, which is believed to be dynamic and interactive. Neimark and Tinker (1986) identify four important assumptions in respect of their approach. Firstly, they accept that social systems are subject to a continual process of transformation. Secondly, these changes in society are brought about by contradictions, which, in the case of the capitalist society, could, for example, be on the one hand the tendency to pay workers as little as possible, contradicted by the need to sell products to those same workers. Thirdly, they regard the organisation and its environment to be interrelated. Fourthly, they point out that the researcher cannot be deemed to be entirely objective, because “the scientific analyst or observer is located within the phenomena under investigation”. As his/her view changes, so does the referent of inquiry.

Interpretation: Influence of neo-classical economics

In contrast to the neo-classical approach that examines an ahistorical, acultural and asocial world of a single firm, the dialectical approach recognises that business firms are part of a dynamic world and are active participants in the processes of social change. In the ongoing conflict among social classes over the division of the social surplus, there is no natural harmony of interests as envisaged in the classical economics of Adam Smith and no supply and demand equilibrium, only constant conflict. The possibility of utility-maximising or profit-maximising solutions through the application of rational, informed models is rejected. Based on the stance taken regarding the market, it can be accepted that the assumptions of minimum government intervention and much free competition are also dismissed.

3.4.2 Labour-process approach

The labour-process approach aims to demonstrate how the owners of capital have structured the work activities as well as the related technical and financial information to weaken, exploit and control wage labour (Roslender 1990:357; Hopper, Storey and Willmott 1987; Hopper and Armstrong 1991). This perspective is based on the premise that, in a capitalist society, work, employment, the organisation and industrial relations are all structured to serve the interests of the capitalist class to the detriment of labour (Roslender 1990). During the industrial revolution, the control of production was effectively removed from the workers and placed in the hands of capitalist owners, and eventually in the hands of managers that acted on behalf of owners. The production process was divided into "specialist" sections, with the result that workers lost the skill, control and satisfaction related to manufacturing a product. Labourers became deskilled, interchangeable commodities (Macintosh 1994:40-42). During the scientific management period around the turn of the nineteenth century, the process of specialisation and control became even more refined. Cost accounting was used to control labourers by stabilising and programming behaviour, by defining goals and subgoals and monitoring performance by means of formal feedback (Hopper and Powell 1985).

In a similar but distinct approach, Armstrong (1985, 1987) views management accounting techniques to be a means for the profession to achieve managerial ascendancy, as a result of the suitability of these techniques to control labour. During the creation of multidivisional structures during the 1920s and 1930s, accountants were prepared for being in control of organisations, because they possessed the knowledge and techniques required for making decisions about the allocation of capital and for controlling labour.

Interpretation: Influence of neo-classical economics
In regard to neo-classical economics, the labour-process approach rejects the objective of profit maximisation as an unfair measure that seeks only to serve the interest of the providers of capital. It stresses "social and political conflict rather than harmony; the monopoly power of corporations rather than self-equilibrating competitive markets; patterns of class formation in specific economies rather than atomised views of the individual and human agency in its cultural setting rather than economic reductionism (Hopper and Armstrong 1991:406)". By rejecting reductionism, it is deduced that the labour-process approach analyses more than a moment in time. Instead of viewing rationality as an incentive to action, economic agents are motivated by their desire to ensure control over the process of surplus production and extraction. Although not specifically stated, it appears as if it is assumed that information is available at no cost and without uncertainty, because the accounting system is described as a "brain centre" for the surveillance and control of the organisation. As a result of the rejection of the market system, it can be assumed that the assumption of minimum government intervention is also dismissed.

3.4.3 Habermas

Habermas also observes a fundamental contradiction inherent in the social structure, brought about by the capitalist system (Outhwaite 1994:63-67). He suggests a form of ideal speech (or “discourse”) as a mechanism by means of which the domination inherent in social structure could be dissolved. The discourse is intended as a way of attaining genuine understanding and truth, undistorted by the normal basis of everyday speech (Habermas 1983:117-189). The participants of a discourse are not concerned with sharing experiences or any other objective, but rather with searching for arguments and justifications with a view to arriving at an understanding. This understanding may be an agreement to differ and does not have to be a positive consensus, but always aims to allow the force of the better argument to prevail (Broadbent and Laughlin 1997:628). Rather than designing a utopian new system, Habermas proposes discourse as an instrument through which society can become involved in a course of self-discovery and emancipation (Puxty 1993:148).

In contrast to post-modern writers, such as Foucault and Derrida, Habermas conceives of the possibility of a fundamental truth through communicative action. Furthermore, he attempts to defend and save the progress and rationality implicit in modernism (Puxty 1993:149). However, to understand the rationalisation process, Habermas (1983:107) draws on the distinction made by Weber between three independent (but interrelated) cultural spheres. These spheres are the natural, social and subjective worlds (Puxty 1993; Lodh and Gaffiken 1997). In each sphere, Habermas specifies a practice and a rationalisation process. In the natural world, where science is the practice, instrumental reason is the rationalisation process. The social world includes practices such as politics, morality and the law and employs practical reason, whilst the subjective world incorporates aspects such as art and literature and uses affective reason. He perceives a danger in the trend that the instrumental sciences of the natural world, including economics and accounting, have begun to colonise the other spheres, in the world of our everyday experience, also called our *lifeworld.*

Interpretation: Influence of neo-classical economics

With regard to neo-classical economics, Habermas clearly subscribes to rationality. Through the rejection of capitalism, he dismisses the possibility of maximising the utility of society by means of the maximisation of individual utility or company profit. By implication of the rejection of capitalism, he discards the belief in minimum government intervention and self–equilibrating markets that are regulated by means of competition. The questions of the availability, cost, and certainty of information are therefore not pertinent to the discussion. Habermas's approach cannot be deemed to have a limited focus, because it investigates the entire *lifeworld,* including the natural, social and subjective worlds. Because the approach holds that all developments are the results of action, it can be deduced that it accepts change brought about by time and it cannot be deemed to be stationary.

3.5 Universal abandon

Whilst the radical approach rejects the *status quo,* and especially capitalism, the writers that fall in the category of "universal abandon" or post-modernism deny the justification for any meta-theories, including capitalism, Marxism, positivism and empiricism.

Post-modernism emerged due to a perceived failure by modernism to fulfil its promises. It is generally accepted that modernism started around the period of the Enlightenment and is associated with a belief in the power of science and the demystification of life through science. It was assumed that man has the ability to rationally and objectively identify a problem, find solutions and implement the solutions to the advantage of all mankind (Koornhof and De Villiers 1999:148, Montagna 1997:128). This faith in the power of science was in contrast with religious authority that had previously been accepted as the fount of knowledge. During this time, the importance of individual rights and freedom came to the fore, together with a general belief in continued progress and the developmental potential of mankind. Modernism brought hope and optimism. Progress and improvement was expected in respect of the individual, social institutions and political systems (Puxty 1993).

On the other hand, post-modernism rejects any possibility of improvement through the exploration of knowledge (Roslender 1996:541; Puxty 1993; Montagna 1997:130). Whereas progress has been envisaged in each of the aforementioned categories (in the case of traditional, systems theory and interpretative theory by means of improvement of technique or understanding; in the case of radical theories by means of transformation of social structures), this possibility is rejected by post-modernism. Post-modernism denies the existence of any transcendental truth and suggests that only localised truth can be found within a particular discourse. It also considers the role of language to be central to the debate and suggests that there is no neutral, objective, scientific language that exists beyond the realm of tradition (Koornhof and De Villiers 1999:150). The views associated with universal abandon or post-modernism include the different Foucauldian perspectives (Loft 1991; Miller and O'Leary 1987; Hoskin and Macve 1988, 1994) and deconstruction (Arrington and Francis 1989).

3.5.1 Foucauldian perspectives

Foucault undertook social analyses through a combination of historical reconstruction and philosophical insight and employed a methodology that was largely reliant on archaeology and genealogy (Roslender 1990). Of special interest to management accounting researchers is his later work that focused on the power-knowledge relationship. The general theme was that, whereas sovereign power had previously been the mode for the exercising of power, a move occurred towards knowledge-based disciplinary power in modern society (Roslender 1990). Several writers, including Loft (1991), Miller and O'Leary (1987) as well as Hoskin and Macve (1988, 1994), employ Foucault's perspective to reinterpret accounting as a disciplinary instrument. They contest the belief that accounting is a passive tool of economic efficiency (Arrington and Francis 1989:2) and trace accounting practices to specific historical archaeological sites to reconstruct them in terms of the social, academic and political practices of that era.

Interpretation: Influence of neo-classical economics

With regard to neo-classical economics, all the above studies clearly indicate that management accounting cannot simply be considered to be a rational instrument that is aimed at profit-maximising solutions. Accordingly, the question of the availability of perfect information at no cost is not relevant to the discussion. Although Foucauldian studies reject the notion of historical progress, their analyses are usually historically and socially rich. Rather than limiting the focus of analysis to a few items that have been made visible and to a moment in time, it encourages a more complete and holistic view. By rejecting any meta-theories, including capitalism, it is accepted that the assumptions of minimum government intervention and self-equilibrating markets that are based on much free competition are also dismissed.

3.5.2 Deconstruction

Deconstruction is a strategy of critical analysis that is associated with the French philosopher Derrida. It is directed towards exposing unquestioned metaphysical assumptions and internal contradictions in texts. It is neither a theory nor a philosophy nor a method, but rather an activity that aims to reveal the powerlessness of ready-made concepts to explain or delimit the activity of writing (Norris 1982:xiii; Royle 2000:1-13). Derrida stresses the importance of language and argues that philosophers have been able to impose their various systems of thought only by ignoring or suppressing the disruptive effect of language. He aims to undo the illusion that reason can dispense with language and arrive at a pure, self-authenticating truth or method (Norris 1982:18, 19).

Deconstruction takes the approach that "there is nothing outside the text" (Derrrida in Royle 2000:7). It is a way of reading, which remains closely tied to the text it interrogates and does not aim to specify a number of operative concepts independent of the text (Norris 1982:31). The autonomy of the text is actively invaded by a new and insubordinate style of criticism that questions all the traditional attributes of literary meaning by *inter alia* revealing contradictions and loaded metaphors (Norris 1982:24).

Interpretation: Influence of neo-classical economics

Arrington and Francis (1989) apply deconstruction to management accounting and propose that any attempt to "ground" knowledge in an external metaphysic, like the positivist's trust in observation or the

Marxist's faith in historical determinism, be rejected. They furthermore suggest that attempts to get closure around knowledge production, which silence other voices and claim to possess a superior awareness of "truth", should be rejected (Arrington and Francis 1989:2). Deconstructionists therefore implicitly reject the validity and appropriateness of neo-classical economics as a basis for understanding a subject.

4 Explaining the discrepancy between theory and education

Whereas the investigation described in this paper, and summarized in the table at the beginning of section 3, indicates that emerging management accounting *theory* appears to be moving away from the confined perspective dictated by neo-classical economics, the progress regarding management accounting *education* in South Africa continues to be hindered by the limiting assumptions of neo-classical economics. In a study by Shotter (2000) that focused on *education* in South Africa, it was revealed that management accounting education is predominantly based on neo-classical economics. The approach adopted in that investigation was an analysis of the most important sources of influence of management accounting *education* in South Africa and included the textbooks authored by Drury, C. (1996); Faul, Du Plessis, Van Vuuren, Niemand and Koch (1997); as well as Redelinghuis, Julyan, Steyn and Benade (1996). The syllabi of three professional institutes, namely the South African Institute of Chartered Accountants (1997), Chartered Institute of Management Accountants (1999) and South African Institute of Chartered Secretaries and Administrators (1999) also formed part of the analysis.

There therefore appears to be an unexplained gap between management accounting education in South Africa and management accounting theory in general regarding the limiting influence of neo-classical economics. Unlike the Kuhnian perception of development, management accounting appears to be evolving gradually, with new ideas being accepted in theory, but ignored in education. Insights offered by the new sciences on chaos and complexity, uncertainty, far-from-equilibrium, irreducibility, subjectivity and context (Overman 1996:487-491) have had almost no impact on management accounting education in South Africa. The reasons why education in management accounting in South Africa has continued to be essentially unmoved by the liberating insights offered by the alternative perspectives on management accounting may provide interesting research opportunities.

A possible explanation is the fact that management accounting education has long been the domain of accountants that are inclined to understand and place more value on information that can be quantified. When evaluating the merits of techniques and approaches for the purposes of decision-making and control, it is likely that accountants will show a preference for the format of information that they are familiar with. The deemed benefits of a more focused, simplified, rigorous analysis afforded by neo-classical economics outweighs the restrictions. The role of the management accountant, as the driver of the discipline, should also be considered, i.e. does the management accountant with ingrained neo-classical views dictate what is required in practice, or are the requirements of practice leading the way. Another reason for the neo-classical influence might be that students and lecturers alike prefer examination papers that have one correct answer that can be mathematically "proven". Whether such exactness bears any resemblance to the circumstances encountered in practice is usually not considered. A further interpretation of the tendency to cling to the traditional paradigm is that course material that covers the alternative perspectives would require some basic knowledge of other fields such as sociology, which would normally not be deemed to be an essential part of the accounting student's curriculum. Syllabi are also often designed to correspond to the requirements of professional institutions that are usually based on the neo-classical approach (Shotter 2000). The "pervasive web of neo-classical economic thought, which is rooted in western society" (Kelly and Pratt 1992) has clearly had a very strong influence on accounting education in South Africa, causing lecturers to accept its main tenets unquestioningly.

5 Conclusion

A review of management accounting theory reveals that development during the past three decades has been based on perspectives that are almost entirely unfettered by the limiting assumptions of neo-classical economics. The finding that considerable progress has been made in the area of management accounting theory, where foundations and perspectives are proposed that are partially or completely free from the restricting assumptions of neo-classical economics, offers some hope for regaining the relevance of the subject. In order to nurture this message of hope into full-grown reality, management accounting *education* will require far-reaching changes. Should management accounting continue to use neo-classical economics as its foundation, the relevance of the subject will remain in doubt. However, if the progress made in respect of management accounting theory can be sustained in the area of education, and eventually in practice, the dream of regained relevance might become a reality.

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