BEYOND A TRADITIONAL BUDGETING ORIENTATION: TOWARDS A COMMITMENT TO *GENERAL DECISION ASSURANCE* (GDA)

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ABSTRACT

This paper critically evaluates and questions the primacy of accounting-based budget data in the decision-making process (usually at the strategic management level) within organisations. It proposes a theoretical synthesis of Peirce's account of social inquiry and Habermas' communicative action rationality to construct an epistemically robust, collectively oriented decision-making framework. The resulting General Decision Assurance (GDA) theory is argued to have the potential to significantly improve the decision-making process utilised by organisations in the emerging knowledge economies.

GDA theory postulates that optimal decision-making which a particular *group* of decision makers can construct in a world of uncertainty and risk is a pragmatic, recursive and democratised process. The theory minimises the role of power and authority, focuses on the force of the 'better argument' and results in the selection of an epistemic 'best-bet' decision option, which is subjected to a rigorous, quantitative and qualitative performance-measure monitoring and feedback process.

INTRODUCTION

Management accounting has an internal organisational focus whereas financial accounting has an external orientation in providing accounting data for decision-making to various groups of outside users. Bazley et al. state that management accounting is "…primarily directed towards providing information of specific use to managers" (1999, p. 5), a party inside an organisation. This information consists primarily of accounting data and is used extensively in the construction of a budget. The budget is one of the main tools utilised in the planning, control and cost management decision-making process undertaken within organisations.

The topic of budgets is a contentious issue with academics, entrepreneurs and senior business managers voicing concerns over the relevance and widespread use of budgets and other accounting-based, cost management techniques (Heller, 2000; Macintosh, 1998; Johnson and Kaplan, 1987 and Kaplan, 1983). Shields (1998) points out that the past two decades have seen the emergence of a significant body of literature, scholarly and from practice, which is devoted to providing evidence that traditional management accounting ideas and techniques are no longer as effective in the contemporary business environment. This perceived deficiency becomes more acute when we examine the literature elucidating the evolution of the new age of the information revolution (the third wave) and the development of the knowledge economy in the emerging '*dot.com*' world (Hope and Fraser, 1997; Porter, 1990). We need to carefully distinguish between information received which, carrying the stamp of higher authority, is treated as effectively constraining the field of decision opportunities available to subordinate managers from information whose *prima facie* relevance has led to its initial selection, but whose relevance, though carrying the imprimatur of authority, further interrogation is entitled to treat as defeasible.

The initial response during the 1980s and 1990s to these concerns has been the introduction of more supposedly sophisticated techniques such as activity-based costing (ABC), value based measurement (VBM), total quality management (TQM), just-in-time (JIT) and the balanced scorecard as well as new terminology such as cost drivers and value chains. There is little evidence of a questioning of the underlying purposes of management accounting practices in relation to strategic management, product and service costing and operational decision-making. It is our belief that very few people have reflected adequately on the degree to which the management data, though being presented to its audience as unquestionably relevant, embody, albeit inchoately, the imprint of historical strategic and operational decision-making.

We question strongly the notion of the *primacy* of accounting data in organisational decision-making as exemplified by the dominance of the budget in the management oversight and organisational performance evaluation process. A theory of General Decision Assurance (GDA) is proposed which provides, we argue, a pragmatic, cognitively sound and collectively oriented decision-making methodology that can deliver more robust decision outcomes with an enhanced epistemic justification. The theory has the potential for budgeting to have an integral and more proactive role in the decision-making process rather than the current emphasis on control and performance evaluation.

The paper adopts a normative and analytical approach to the issue of organisational decision-making and has four parts: firstly, an evaluation of the main elements of traditional management accounting literature which explicates the evolutionary movements towards supposedly 'better' budgeting practices; secondly, an evaluation of the claims of the advocates of radical reform, that is the abandonment of budgets altogether; thirdly, an assessment of the potential for an evolved role for budgeting within the proposed *general decision assurance* framework; and finally, our proposal of a theory (GDA) that provides the underpinning that would sustain the intellectual legitimation necessary for major changes to the role of budgeting to succeed in the longer term. Case-based evidence and the methodological phases embodied within the proposed theory will be canvassed in detail in later papers.

MANAGEMENT ACCOUNTING AND BUDGETING

Management accounting has a long history, which subsequently evolved into the perceived management control problematic that emerged in the 1950s as organisations became larger and more complex. The focus of management accounting appears to be on issues such as planning, control and decision-making in the strategic and operational management contexts i.e. conditional truths (Roslender, 1992; Scapens, 1991). The transition to the age of information economics problematises the management control approach initially conceived to address labour deviants but now functioning as a decision monitoring and control system. Modern mainstream management accounting texts have therefore focussed primarily on the techniques and processes involved in the context of supporting internal decision-making that fulfils organisational goals as envisioned by senior management. (Bazley et al., 1999; Peirson and Ramsay, 1996; Horngren and Foster, 1991). The emphasis is on the practical nature of this part of accounting with little space being devoted to theoretical developments and concerns (Scapens, 1991). It is this gap between theory and practice that is a prime concern of this paper. Comprehensive, quantitative data gathering under the aegis of cost management processes should not be a decision driver in any sense that is legitimate. A team's collective business judgment, capable of communicating sustained structures of sound argumentation, should be the sole decision driver.

The advent of the revised management accounting perspective in the 1950s meant that distinctions were being made between strategic planning and operational management. Strategic planning was/is seen as a long-term process with its concomitant elements of determining from its corporate vision its strategic objectives. From the palette of strategic options for achieving the objectives, a selection of the most feasible course of action and the implementation of appropriate decisions intended to operationalise the achievement of these objectives/goals/outcomes/targets is made. Operational management was/is focussed on the short term with a strong emphasis on day-to-day control and oversight of the activities of the organisation to ensure the success of the earlier strategic planning round. A critical tool in this cycle was the development and widespread use of the budget as an executive device crucial to ensure that management decisions were widely promulgated, enacted and reviewed throughout an organisation.[1] Thus conceptualised a budget in effect polices compliance, deepening the risk of unchallenged commitment to possibly failing strategies.

The budget is the preferred management technique for monitoring the outcome(s) of the planning process. Bazley et al. (1999) identify six main purposes underlying the importance and widespread use of the budget that are mainly concerned with compulsion, oversight and effectively the overarching perceived need for senior management to exercise centralised control over the organisation.[2] Thus conceptualised, budgets are viewed by executive management as a vital and functional tool. The topic of budgets, budget setting and in particular the study of the behaviour of subordinate managers[3] has been extensively researched and published in the extant literature such that Brownell and Dunk (1991, p. 703) claimed that this was "…the only organized critical mass of empirical work in management accounting…"

Developments in the Budgeting Literature

The seminal study in this area was a major study of factory supervisors in four production firms by Chris Argyris, an industrial psychologist, titled "The Impact of Budgets on People" (1952) which revealed concerns about the possible dysfunctional effects of budgets. The results indicated the importance of employees and subordinate supervisors resisting (through negative attitudes) the constrictions placed on them by budgets. Indeed the existence of budgetary controls themselves could in fact provoke the dysfunctional behaviour. The types of resulting dysfunction included possible exploitation of the workforce; deflecting potential criticism of senior management; portraying of accountants as the enemy of workforces; and, the construction of budgets becoming a mere ritual exercise. It highlighted the need to include the human behaviour dimension as well as the technical aspects of budgets in future empirical research. The danger exists, we argue, that such future empirical research might maintain its resolute descriptive dimension where in actuality a normative dimension is called for. Central to the analysis of the dysfunctional behaviour identified by Argyris is the need for the construction of a legitimating framework for group decision-making that secures the group's 'buy-in' or ownership of the decision outcomes reached.

Another seminal study in this area by Hopwood (1972) and a further paper by Otley (1978) had conflicting results. Hopwood focussed on 'supervisory style' as distinct from the Argyris 'budget pressure' construct being the prime cause of dysfunctional behaviour induced by the use of budgets to evaluate the performance of subordinate managers. The Hopwood study found evidence that this review and evaluation process, utilising budget targets, negatively impacted upon managers' job attitudes and exacerbated job tension; and, could lead to poor or negative decision-making and/or data manipulation to mitigate budgetary impacts. However, the subsequent study by Otley (1978) found no significant evidence of negative impacts on job tension or social relations attributable to the use of budgets by superior managers as an evaluative process. These contrasting findings acted as a spur and an incentive to other researchers to investigate this contradictory phenomenon rapidly expanding the extant literature in this area. The majority of these papers utilised a contingency perspective emanating from contingency theory, as initially applied in the management discipline, in order to apply contextual variables that would help to explain and account for the contradictory outcomes of the Hopwood and Otley studies[4].

Otley and Hopwood also followed up these original papers with a body of research work to investigate the initial research outcomes more deeply. Hopwood in 1974 carried out an empirical analysis of three styles of managerial use of budgeted accounting data for performance evaluation utilising a questionnaire approach but only at one Chicago-based company site. However, the subsequent bulk of his later work (examples being 1978; 1980; 1983; 1985; and 1987) was either more case-based or a series of reflections on the organisational context of accounting and the social significance of accounting. Little of that subsequent body of work was concerned with the mainstream accounting research focus on sophisticated statistical analysis of narrowly bounded research questions into the nature and practice of budgeting. Otley's subsequent work (examples being 1980; 1994 and 1999 and with co-authors: Berry, 1980; Fakiolas, 2000 and Pollanen, 2000) was also less oriented to empirical statistical analysis and more reflective about the contingency theoretical framework employed; changing approaches to management control and performance evaluation; and, also a critical appraisal of the body of literature in this area with a view to refining the research approaches adopted by other authors in the field.

However, a recent paper by Hartmann (2000) comprehensively reviewed this large body of research and raised a number of critical concerns. The study effectively followed on from an earlier study by Briers and Hirst (1990) that had critically evaluated 31 studies (Table 1, pp. 387-390) concluding that theory development had been limited and piecemeal and that there was an overemphasis on the role of statistical analysis. Hartmann's analysis identifies the concentration by this body of literature on contingency-based studies that had investigated a wide range of different factors including national culture, environmental characteristics, strategic considerations, subordinates' task uncertainty, superior-subordinate relations, locus of job control and personality factors. The body of research although large is beset by significant methodological and theoretical challenges which contradicts the Brownell and Dunk (1991) claim of an *organised* critical mass of research. The focus of most studies was statistical testing (as Briers and Hirst had earlier concluded) of the contingent variables as well as attempting to replicate earlier studies (usually with low levels of success). However, as Hartmann points out, there is no unity in the empirical measurement of the Reliance On Accounting Performance Measurement (RAPM) construct nor is it clearly explained in the conceptual management control literature (2000, pp. 466-467). Another concern is the lack of advice to management about possible 'better' organisational practice, instead the literature focuses on attempting to explain accounting phenomena; this distinction also features in the wider debate about normative (prescriptive) accounting research versus positive accounting which supposedly studies what is *actually happening* (italics added; p. 468). The methodological inconsistencies as well as the lack of pragmatically oriented solutions are major problems.

The underdeveloped theoretical foundations of this body of literature are of greater concern with neither an underlying theory of RAPM emerging from the past thirty years of research nor a clear understanding and consistent application of the contingency theory approach. Many studies do not identify either the theoretical approach being used to inform their investigations or a theoretical reason advanced for the particular contingency approach selected (Hartmann, 2000; Otley and Fakiolas, 2000; and Briers and Hirst, 1990).

Shields and Shields (1998) raise similar concerns in their meta-analysis of 47 participative budgeting articles. Participative budgeting is where a manager has some influence on the budget outcome(s) on which (s)he will be judged and is advanced as a positive approach to reducing the degree of dysfunction. They identify the theoretical literature that underpins the reasons for the existence of participative budgeting as being economic (superior-subordinate information asymmetry), psychological (value attainment, cognitive and motivation effects) and sociological (organisational contingency variables). They conclude that the failure to find support for particular hypotheses is the result of insufficient or imprecise theory or faulty methodology.

Other significant concerns have also been raised in the literature. Kaplan (1983) and Johnson and Kaplan (1987) argued a 'relevance lost' thesis where traditional management accounting techniques no longer had *relevance* in the modern business and manufacturing environment. They were not advocating the dismantling of the importance of budgets rather that the problem was with inappropriately specified costing techniques, an overemphasis on purely accounting data and incentive schemes that were overly focussed on short-term financial measures.

We address the question of this inappropriateness in terms of a lack of 'fit' encountered by informational data in their transition between two fields of relevance. The short, medium and long-term perspectives serve only as intensifiers of such data dislocation. Cross-cultural studies could, we believe, profitably explore the shift in the conditions of reception aesthetics across differing cultural structuration (the work of Hofstede comes to mind). In a cultural climate of collegial equality budget imperatives would be experienced as systematically distorting the reservoir of good will while in a cultural climate where power is more respected, such 'imperatives' may be read as fitting. Later our paper will argue that such cost management processes should issue as budget guidelines rather than imperatives where under executive authority the guidelines are binding unless confronted by grounded, informed dissent at which point they transform into an exercise that the literature refers to as participative budgeting. This notion will be defended when we argue for a bounded organisational cascade of GDA protocols.

Alternative Research Approaches to Management Accounting and Budgeting

Management accounting research has also been conducted by individual or small groups of researchers that have been informed by alternative theoretical insights gleaned from social theory or philosophical programs antithetical to the mainly positivist positions adopted by mainstream accounting researchers. Roslender (1992) labels the four main streams of this research output as being the interactionist perspective, labour process (Marxist) perspective, critical theory and the Foucauldian perspective, and Macintosh (1994, p.7) identifies nearly twenty different frameworks that have been applied to the study of management accounting and control systems.

Puxty (1993) on the other hand analyses the range of *traditions* that could be employed by accounting researchers. These vary from the technical, empirical approach; systems perspective; micro-sociological theories; radical critiques; the intellectual outputs of Foucault and Derrida and finally the possibility of pragmatic reconstruction using Habermas and his theory of communicative action. Whilst, Chua et al. (1989) identify eight separate theoretical perspectives to be utilised to research management control issues. They have deliberately titled these as '*Critique In Concept*' and '*Critique In Action*' (italics added, pp.vii and viii) rather than employ the more widely accepted terms 'theory' and 'evidence' to avoid what they claim would be two errors "...first, the error of claiming that theories and evidence are separate methodological stages and second, the error of implying that evidence is theory free" (p. 5).

The common element of these critically oriented research outputs is a general call not to be limited by dominant theoretical paradigms and to consider concepts of multi-theoretical or multivocality approaches to research issues and questions. Deegan (2000, p. 412) points out that researchers adopting a critical perspective are primarily focussed on highlighting inequities in society rather than providing direct solutions. . Otley (1999, p. 363) argues that different "… approaches, most notable those based on critical theory, have been used to study other aspects of the role and use of accounting systems, but have tended to concentrate on sectional interest rather than on overall control." Therefore, no united position has been adopted on the central contentious issue of the continuing use of budgets and the management control problematic. The critiques of the mainstream accounting literature are rich and powerful but are limited in that they offer little or no practical solutions to the issue of tools and techniques to support internal organisational decision-making processes. GDA theory, with its epistemic justification focus, directly addresses a pragmatically informed practical solution to sustained, organisationally pervasive decision-making processes.

Possible Solutions

The solution(s) offered by the 'Relevance Lost' advocates such as Kaplan, Johnson, Cooper and Norton are greater technical sophistication, the use of new terminology (e.g. cost drivers and value chains) and the development of multiple indicators, accounting and non-accounting, including quality, continuous improvement, innovation, degree of teamwork, partnerships, set-up times and flexibility. This has been labelled the balanced scorecard (Kaplan and Norton, 1992). Another of the planks of this new movement is activity-based costing (ABC) where “the final product costs are “built up” from the costs of specific activities undergone” (Horngren and Foster, 1991, p. 150). Organisationally specified activities are the building blocks for compiling the costs of other cost objects.

Our concern with such a proliferation of informational data [the concept of criticality does not thereby secure their status as apposite] is that their fatal flaw is not addressed. The extent to which the informational feed to the decision-making processes is of necessity captured by the field of relevance of previous problem domains remains unexplored. Such an informational feed assumes the inappropriateness of a hermeneutics of information, what Wittgenstein in the *Tractatus Logico-Philosophicus* (1971, p. 151) captured in his image of a ladder discarded subsequent to its deployment. A self-correcting decision process we argue of necessity generates a self-correcting data selection.

Hartmann (2000) does argue that the future outlook is not that pessimistic. His premise requires a rethinking of the question of uncertainty in that there is no support in the literature for the notion that uncertainty has a *negative* impact on the appropriateness of RAPM. He argues that future research efforts need to focus on a number of key issues. Firstly, the investigation of the different role of accounting performance measures in different organisational contexts; secondly, to investigate the meaning of appropriateness itself; thirdly, the need of theory for the appropriateness of RAPM under uncertainty for the evaluator of subordinate performance; fourthly, investigation of RAPM under different forms of uncertainty; and finally, further investigation of the impact of uncertainty on the subordinate manager. What decision-making under conditions of uncertainty foregrounds, we argue, is an increased recognition of the inflexibility of budget imperatives. It should instead concentrate the mind on the need for *decision flexibility*; what has been referred to as the “adaptive decisiveness” of good decision outcomes (De Reuck et al, 1999; 2000).

Otley and Fakiolas (2000) are more upbeat about the future of RAPM research with the title of their paper going on to read “… dead end or new beginning?” They argue, “…performance measurement and the use of performance measures in performance evaluation are still key management issues” (2000, p.509). Their approach is to focus on the construction of better measurement instruments to detect the more distinct dimensions of performance evaluative styles that have emerged in the literature. The paper’s focus is therefore to better define or measure RAPM but they do not engage with one of the central tenets of Briers and Hirst (1990) and Hartmann (2000) critiques that identified the piecemeal nature of theoretical development in this area. They do, however acknowledge that “… changes in organizational control practice that have emerged in the last decade…cast doubt on the current *role* [emphasis added] of accounting-based performance measurement techniques.” (p. 508).

Mainstream writers are certainly consistent in their belief that budgets are here to stay and that they will remain a central plank in organisational decision-making with accounting-based measures still playing a major role. There is acknowledgment that the role of multiple performance indicators will need to be assessed critically and the claim is that the range of concerns represents a challenge and not a threat to this body of management accounting research.

BEYOND BUDGETING

A radical solution has, however, been advocated and put into practice by a number of businesses and that is the abandonment of budgets as a management tool. This movement has led to the formation of the Beyond Budgeting Round Table in 1998, a part of the Consortium for Advanced Manufacturing, (with membership of over 50 companies and organisations throughout the world[5]) which initially focussed on research into companies who had already successfully implemented this radical strategy.

The arguments raised focussed on the widespread dissatisfaction with traditional budgeting systems with budgets perceived to be significant barriers to devolution and more effective management[6] (BBRT, 2000; Heller, 2000; Thomas, 2000; Oldman and Mills, 1999; Hope and Fraser, 1997; Hope and Hope, 1997).

The primary concern of the group is that budgets have the underlying purpose(s) of predictability and control that are benefits (illusory) for centralised management but are widely resented within organisations and provide little realisable, value-added benefits. Such wholesale abolition of the information generated by accounting-based budget systems is clearly premature, though a re-examination is called for, if only to bring more clearly into focus their historical strategic and operational presence. The resentment within organisations reflects, we believe, both cognitive and psychological origins. The psychological grounded in the normal dislike intelligent humans feel when their decision-making capacity – and hence their autonomy – are curtailed, while the cognitive are grounded in the recognition that the data items are not obviously appropriate to the field of relevance projected by current problem domains. Both sources of resentment will be addressed later in the paper.

This approach has been pioneered by companies in Scandinavian countries that had initially commenced with experiments encouraging the operation of group oriented decision-making teamwork amongst employees in companies such as Volvo; and, then extended to extensive devolution of decision-making within bounded domains but not including investment and strategic decisions and major changes to management practices, control and oversight functions (Hope and Fraser, 1997; Heller, 2000). The replacement of budgets by market-based targets, internal and competitor benchmarks are central to this approach as well as wholesale changes to corporate culture and management thinking. While such extensive devolution of decision making concomitant with the abandonment of budgets as a management tool does remove the constraints managerial control imposes on the problem solving abilities of subordinate managers it does so, we argue, at the cost of an informed unity of purpose. What is required is an approach that delivers the same optimising of the human capital available to the organisation, while at the same time constructing a unity of purpose forged and vindicated through the utilisation of procedures that are acknowledged to be morally legitimate. We shall further argue that such a unity of purpose need not require an intellectual conformity of belief, just as a political system can have a unity of purpose while allowing for continuing diversity of opinion.

The best exemplar of this approach is a Swedish bank, Svenska Hadelsbanken that has had thirty years of experience in this area. The bank started the 'radical' change process in 1970 and then finally abandoned the use of budgets altogether in 1979. It is the pragmatic success of such organisations with their culture of devolved decision-making, thrift and continuous improvement that has elicited widespread interest in this so-called 'experiment'. Hadelsbanken is Sweden's largest bank. The 1999 financial results showed a 21% return on equity compared to its domestic competitors' of 12.5%, an expense ratio of 45% percent the lowest of large European banks (most of which are around 70% or higher), and top of the list of customer-satisfaction surveys in Sweden (Thomas, 2000). It is a highly successful organisation.

An underlying belief, as voiced by the chief executive officers of organisations such as Svenska Handelsbanken and others such as Asea Brown Boveri (ABB), General Electric (GE) and Ikea, is that budgets are an 'unnecessary evil', a 'bane' to the corporate world and antithetical to simplicity and common sense. This is especially so in planning and strategic direction (Thomas, 2000; Heller, 2000; and BBRT, 2001). The use of budgets creates a "…budget bureaucratic complex". This claim was claim made by Jan Wallander (CEO of Svenska Handelsbanken) to label the vehement opposition he encountered from those employees who felt they were an integral and therefore fiercely protective part of the budget system, when he proposed the entire dismantling of the budgeting process (Thomas, 2000, p.73).

This group of CEOs and other advocates consider that budgets overemphasise and institutionalise the elements of centralised command and control at the expense of flexibility, innovation and organisational responsiveness to new challenges. They claim that it also helps to create dissatisfaction, compartmentalises information and inculcates barriers to knowledge sharing as well as devaluing the importance of people in the workforce. In addition the budget process takes up too much time for those involved in its construction with estimates that time saved without the existence of budgets would be in the order of twenty percent (Thomas, 2000, p. 72). They conclude that budgets as traditionally mandated are no longer appropriate to the modern business environment. The issues of barriers to knowledge and the concomitant frustration of human potential lie at the heart of contemporary concerns. The path that seeks to finesse such barriers to knowledge through radical devolution while securing maximal individual freedom incurs the profound penalty of foreclosing (prematurely, we believe) on other decision management options that keep the notion of team-work centred across the range of the organisation. They would thus remain capable of accessing the facilitative power (Barnes, 1993) available when knowledge is comprehensively distributed across the relevant social fields. This initiates a synergetic, cognitive dynamic that delivers optimal epistemically justified decision outcomes for the firm.

Asea Brown Boveri (ABB), General Electric (GE) and Ikea are other prime examples of this radical approach, which they see as appropriate in what Braim (1998), Foray and Lundvall (1996) and Porter (1990) term the new knowledge economy whilst Hope and Fraser (1997) refer to this new age of business as the third wave. Characteristic of this is the paradigm shift in corporate thinking that has resulted in most companies determining that the greater part of their market value is in their knowledge/intellectual capital. GE and ABB have more than 80% of their value in knowledge or intellectual capital vital in the new economies where service, speed, quality, innovation and information sharing are the hallmarks (Hope and Fraser, 1997, p. 20).

A number of businesses are following the above examples with companies such as Air Liquide, Bull, Borealis, Schlumberger, Carnaud Metalbox, Boots, Volvo and SKF implementing similar reforms (BBRT, 2001). This path is not for all given that surveys show that more than 99% of businesses in Europe still operate with traditional budgeting systems and some companies that attempted this type of reform have abandoned their efforts (Hope and Fraser, 1997). However, it is argued that organisations in the service sector and those closely connected to the 'dot.com' world will experience sustained pressures that may well mandate serious consideration of just such an option (Oldman and Mills, 1999).

This movement is predicated on an argument that the changed approach to decision-making and management of organizations 'works' but there exists no underlying, coherent theoretical framework that would provide the required degree of legitimation to sustain the overall 'reform' process in the longer term. However, the movement cannot be ignored and deserves to be taken seriously even though the group's radical solution of abandoning budgets totally is not one that we would support. In the next section we canvass and argue for a redefined role for budgets that would then operate within the proposed General Decision Assurance theory developed in the final section of the paper.

BUDGETS AND GENERAL DECISION ASSURANCE THEORY

The role of traditional budgeting is under threat of being increasingly marginalised by both the radical reform movement (BBRT) and the growing movement that advocates greater devolution and delegation of decision-making authority and responsibility. There is a need to rethink and adapt the role of the budget within organisations. One of the original authors (Otley) credited with starting the development of the body of literature on management control and performance evaluation acknowledges the need for significant changes to the role played by budgets. There are also calls in the management literature for changes to the way organisations respond to management control issues and practices at both the strategic and operational decision-making levels within organisations that want to be classified as high performing and dynamic in the emerging knowledge economies of the increasingly globalised, information age.

Otley's (1994) study argued that there was a growing decline in large, hierarchically structured organisations in favour of smaller, more focused and reduced size of business units. He pointed out that:

> We are increasingly concerned with matters of managerial and organizational development, as well as more conventional areas such as performance measurement. In essence we are *having* [emphasis added] to move from a hierarchical, top-down approach to control to one where self-control, innovation and empowerment are of at least equal importance. The controller is no longer embedded in the higher reaches of the organization; the control function needs to be embedded at all levels. Only in such a way can the contemporary organization survive in its rapidly changing environment (pp.297-298).

He went on to argue (1999) that there also needs to be a change in the performance evaluation approach to encompass other more contemporary techniques such as economic value added (still primarily a financial measure) and the balanced scorecard with its multiple performance measures both financial and non-financial. Finally, he pointed out the necessity for substantial change to budget-based and accounting-based control techniques because one cannot be "… expecting the world to behave in the same way it did in the early 1970s." (Otley and Fakiolas, 2000, p. 509).

The management literature, initially at the strategic planning level, also focuses on the need for a changed role for budgets or the overemphasis as Mintzberg puts it on the "numbers game". The primary reason is that this emphasis impedes strategic change because "…the whole numbers game usually amounts to an exercise in repeating what everyone already knows, geared to the generation of a set of targets and standards within the context of the existing strategies" (1994, p.86). In other words it acts as a deterrent to innovation, creativity and flexible responses to both internal and external pressures that could necessitate changes to strategic decisions already taken within organisations. The budget process and its concomitant emphasis on financial measures is also questioned by Garratt (2000) and Boyett and Boyett (1998). They favour instead the use of multiple performance indicators such as the balanced scorecard and argue that budgets should not be so dominant in the decision-making and performance evaluation process.

The latest management literature (Garratt, 2000; Boyett and Boyett, 1998; Hesselbein et al., 1997) argues that contemporary, high-performing organisations[7] adopt management approaches that value the people at work and focus on the gains to be added by the knowledge/intellectual capital that comprises 80% or more of the total value of the organisation (Hope and Fraser, 1997). The elements for success that these authors agree on are the extensive use of work teams from senior executive teams downwards; emphasis on flexibility, adaptability and learning; strong support for innovation and creativity; performance rewards being team-based; information shared openly; managers acting in a facilitative role and the atmosphere being the equivalent of working in a small business (Garratt, 2000, pp. 133-138). The end result is a more collectively oriented approach to decision-making and performance evaluation that becomes organisationally pervasive. This scenario is one in which budgets play a more proactive and less dominant role to support, as part of a wider multiple performance measurement system, the decision-making processes of teams throughout the organisation. Accounting numbers will always be important but only as part of a decision verification criteria set.

This begs the question of why there are still so many traditionally oriented organisations in both the private and public sectors. Such traditional organisations in over 90% of cases in Europe and the Unites States rely heavily, if not exclusively, on traditional budgeting processes (Garratt, 2000; Hope and Fraser, 1997). The speculative answers provided in Boyett and Boyett range from resistance to an organisational cultural change from an emphasis on individuality to one of a collective nature; the team approach being perceived as too time consuming, risky and inefficient; managers feeling threatened by a loss of control, status and responsibility and even that the transition from traditional to high performing organisation is simply too hard to accomplish and sustain (2000, pp. 140-141). We argue that an additional prime reason for this is the lack of a sufficiently robust theory that would underpin and legitimise a transition from the currently pervasive top-down decision-making approach to a more collectively oriented version.

We conclude that budgets, as traditionally conceived, need to shift from the current emphasis on centralised oversight and control with its ex ante budget targets that become organisational imperatives, and the ex post emphasis on performance evaluation of subordinate areas and managers. Budgets need to play a more proactive and integrated role within a collectively oriented and devolved decision-making environment. Budgets and their concomitant accounting-based targets would then issue as organisational guidelines and not as budget imperatives. Budgets would change focus and operate in an enhanced, facilitative role to enable organisational teams to evaluate alternative decision options on an ongoing basis and select the most feasible one based on a rigorous, argument-based epistemic 'best bet' process. The selected option would remain open to challenge and made conditional on the achievement of an agreed decision-verification criteria set when implemented. This process would also ensure that the 'best bet' decision option is thereby continually under review and subject to ongoing vindication. The following section explicates the postulates for a proposed General Decision Assurance theory that legitimises just such an approach to decision-making.

GENERAL DECISION ASSURANCE – THEORETICAL POSTULATES

The first of the main theoretical postulates that we advance as an integral part of GDA theory is the notion of an organisation as a complex adaptive system. The concept was originally developed by a think tank that came to be known as the Santa Fe Institute in the mid 1980s (based initially in a rented convent in Santa Fe's art community in America) and which arose from the intellectual interaction of a wide group of researchers from physics, economics, mathematics, biology, artificial intelligence, ecology, neural networks and chaos theory. These scholars created an alternative view to the dominant mainstream that believes (still) in a linear, reductionist approach to the investigation and expansion of (primarily scientific) knowledge. Their belief however is focussed on the "…spontaneous, self-organising dynamics of the world…" (Waldrop, 1992, p.13) which they feel could have major impacts on economics, business and even politics (a very strong claim!).

GDA Theory – Complex Adaptive Systems and Decision Making

Complexity theory originated in the natural sciences but is being increasingly utilised in the analysis of social systems because the complexity approach sees no "…duality between man and nature" (Waldrop, 1992, p. 333). Complexity theory is still in its infancy. There does not yet exist an unambiguous definition of complexity itself. The complexity approach argues that complex systems mimic organisms in their behaviour within uncertain ever-changing environments, and that the organism can adapt and change in response to the information that it gathers from its environment (Capra, 1996). This learning occurs through the interaction of individual "agents" (usually non-intelligent or 'dumb') who when aggregated as a whole can then display collective intelligence, learning capacity and ability to adapt and even be innovative.

The initial use of this seemingly radical worldview of systems and their evolution is in economics to help challenge neo-classical assumptions and approaches to rationality and the interaction of individuals in society. A growing body of research in the economics literature views economies and economic phenomena as complex adaptive systems exhibiting emergent behaviour (Arrow et al., 2000; Foster, 2000; Pilotti, 1999; Brian, 1994; Miller and Holland, 1991). This development has been replicated in the finance discipline with calls to study financial markets as complex adaptive systems (Mouck, 2000 and 1998). There is also an emerging and strong argument that extends this concept to viewing individual organisations (firms) as complex adaptive systems, a notion with which we concur (Foster, 2000; Sanchez, 1997; French, 1995). In addition, the management field has also seen an expanding body of research utilising these insights especially in the area of decision-making (Innes and Booher, 1999; Sanchez, 1997; Stacey, 1996; Bettis and Prahalad, 1995; van de Water and de Vries, 1992).

The most relevant example for this paper in the management literature, because it incorporates both complex adaptive systems and the Habermasian communicative rationality approach, is the article by Innes and Booher (1999) on developing effective consensus amongst stakeholders in long-range planning decisions. The article focuses on the construction of more effective decision-making. Innes and Booher argue that the use of consensus building as a way of negotiating outcomes amongst stakeholders, faced with complex and controversial planning and policy tasks, can be effective if it results in agreement and action through a connecting and communicative process with others, allowing for ways to cope with uncertainty and rapid change(s) in contemporary society.

This can be better achieved, so they argue, by employing the insights from complexity theory and (Habermasian) communicative rationality. They argue that a set of process and outcome criteria that they have produced can be used in a way that minimises power, requires relevant information to be shared openly and equally and allows for the building of trust and shared understanding. This process can then be used to produce increasingly sophisticated solutions to complex planning tasks and thereby "…people can trade self-defeating patterns of conflict for ones that empower them to engage in adaptive and rewarding actions." (Innes and Booher, 1999, p. 422).

The concerns we have with the Innes and Booher approach are threefold in nature. The first is that their argument relies on the need to develop *shared understanding and consensus* amongst stakeholders. This is the same failing, we believe, that applies to Habermas' theory in that there is no room for thoughtful resistance or well-articulated arguments for alternative decision outcomes. Secondly, it does not deal with the Moscovici and Doise (1994) concern that collective decision making can result in inappropriate outcomes in that there is a tendency to gravitate towards extremism or polarised positions rather than an agreed mid-point or compromise amongst the competing viewpoints. Our own solution will not be seeking, nor will it necessarily deliver, converging views. Finally, there is no mechanism available to prevent the too-early development of an *Alpha Argument* (covered later in the paper) amongst the participants in the collective decision-making process. In other words they do not allow for both divergent as well as convergent thinking in their proposed criteria for consensus building. They are less able to cope with, or even identify, what could be deemed to be emerging commitments to failing strategies.

The final note of caution we have is that the complex adaptive systems (CAS) approach in the diverse disciplinary-based literature to date mainly emphasises material from the natural sciences and does not have a clear explanation for the interaction of intelligent "agents" acting consciously for change. It also focuses strongly on the adaptation, learning and successful evolutionary nature of the CAS process, which means it implies that mere survival in the game is in itself a "good" outcome. The central and valuable intuitions the debate embodies, involving on the one hand, as they do, a concern about excessive stability and predictability with its concomitant bias against change and adaptability while, on the other, the recognition that complex-adaptive elements operate on the edge of chaos, correctly identify the two key challenges decision management faces: providing decisive outcomes while still maintaining adaptability. Where the debate is deficient, however, is in the crucial arena of epistemology. The dynamism that the system requires to make it self-correcting is without a theorised *decision search strategy*. It is precisely here where the epistemic limitations of the socio-biological terminology reveal themselves most that our General Decision Assurance theory delivers, we believe, the required decision search strategy.

The normative resipiscent dimension that finds expression in the notion, which we have adopted, of *self-correction* is articulated within a perspectivally bound conception of humanity's objectives and options. Such a relativistic epistemology, without transcendental security, and argued for within a naturalistic ethos requires theorists to accept a disequilibrium model of rationality. Hence our choice of the phrase 'the methodological turn' where epistemic vindication is achieved when social inquiry is subject to carefully thought-out procedural constraints.

GDA Theory - Drawing on Peirce and Habermas

We offer a modification of C. S. Peirce's account of social inquiry[8], which results in a pragmatically conceived, procedurally governed, normative General Decision Management Methodology. It takes the form of a conditional imperative - if you wish to make optimally justified decisions then you should follow the procedures GDA lays down - delivering optimal epistemic justification for group decision making under conditions of uncertainty and risk. It is argued that such a theory fully optimises the intelligence and creativity available to group decision-making, with the resultant decision outcomes characterised by the key elements of flexibility and decisiveness. We take seriously Peirce's injunction not to "…pretend to doubt in philosophy what we do not doubt in our hearts" (quoted in Sheriff, 1989, p 141) and so accept that real concerns about decisions initiate a new round of inquiry. We draw on Habermas' (1987) conception of communicative rationality[9] and Peirce's (1931; Misak, 1991) conception of a procedurally driven social inquiry, while rejecting the theory of truth Peirce espouses and Habermas' requirement for a shared understanding

If one aims, as Habermas does, at shared understanding as an outcome of social inquiry one runs the risk that such a convergence of diverse views to secure a shared understanding could be coerced by what appears to be a benign subscription to a theory of truth. Rationality is here conceived of as, by dint of communal exploration, a systematic method for removing error, allowing the decision-making group a continued approximation to the final truth. Deep correspondence assumptions underlie this way of conceptualising the nature of social inquiry. Held as a metaphysical article of faith, such correspondence theories of truth stubbornly resist theoretical vindication. The contemporary naturalistic ethos precludes theorists from invoking such transcendental principles of reason.

Epistemological relativities also suggest such routes to shared understanding may be marked more by cooption than convergence. Such cooption introduces a central problem, that of compliance, as it emerges in social inquiry leading to decision-making. Traditional conceptions of leadership 'naturalise' these structures of compliance. Submission is often disguised as thoughtful acknowledgment of the prerogatives of leadership. The vital role of recusant is thus denied to members of the decision-making group that has, as one of its consequences, the disconnection between decision taking and the acceptance of responsibility. Such naturalised patterns of intellectual subservience exact a high toll from the decision-making group's intellectual capital. It also exacerbates the problem of the management of subsequent organisational changes, as the group's avowed agreement was not sincerely won. If the decision management's procedures lack perceived legitimacy then the original commitment by all members of the group to a commonality of purpose is itself inauthentically given.

It is important to note here that a commitment to a common purpose by a group does not entail that all members of the group should agree to the decisions reached by the group. 'Common purpose', as we understand the term, refers to the common commitment of the group to support the legitimately determined decision outcomes of the group. It does not entail that group members share an understanding of either the problems confronting the group or of the solutions finally chosen by the group. The former personal issue is one of abiding by one's commitments while the latter cognitive issue remains one of intellectual integrity.

The issue here is fundamentally one of legitimacy. Authentic agreement is unavailable under conditions of domination. The dominating structures of deep power (class, race, gender) are the most corrosive forms of noise systematically distorting the communicative environment of social inquiry. Clearly such dimensions of power need be recognised and eliminated. The strength of a third-person epistemological vantage point (derived from a socialised conception of rationality) is undermined by the subtle privileging of first-person perspectives through the valorisation of certain speaking positions. It is, deploying narratological insights, to a *figural* third person epistemological vantage point that we wish to lay claim. (See, for example, Baergen, 1995, pp3-46). Groups appeal to standards internal to their grouping for the adjudication of competing claims. Claims, in the context of social inquiry, to a privileged access to truth, function dogmatically and frustrate the conditions of open inquiry that our methodology will advance. The *methodological turn*, predicated as it is on a disequilibrium model of rationality, is capable, we shall argue, of generating the necessary epistemic quality assurance required of decisions made by groups under conditions of uncertainty and risk.

GDA Theory – Additional Considerations

We refrain from endorsing the requirement that debate over decision options proceed until a full consensus agreement is reached. Such a demand usually functions coercively. There will always be though, at the point where perceived opportunity costs outweigh the perceived value of further inquiry, the need to make a timely decision. A simple or special majority mechanism can trigger this decision but this temporal pressure cannot be seen to be prematurely foreclosing on other well-justified minority positions. A truth-driven, zero sum logic has no place here. Future exigencies might prove the majority decisions taken to be unfortunate ones and the minority views forged in the cooperative enterprise of reaching good decisions could then come into their own.

We argue that diversity of opinion is vital to good decision-making and in the context of vigorous argumentation the opinions not selected by the consensus mechanism still warrant preservation. The availability of this *reserve coverage* (of alternative but rigorously argued decision options) is what lends the potential for adaptability of the decisions taken. Using a pragmatically conceived procedural rationality allows the debate to continue until the moment of decision is reached at which point the chosen judgments (made under the simple/special majority mechanism) become the ‘best bet’ decisions of which that particular group of inquirers is capable. The decision point always remains context specific and introduces a notion that, in a forthcoming paper (De Reuck et al, 2001), is termed, “rational luck” (analogous to the “moral luck” of ethical theorists). Rational luck refers to the unknown future utility that the debate beyond the decision point might have delivered. It also marks the non-epistemic nature of the cost benefit pressures that lead to the termination of a particular debate. This again stresses the importance of preserving the canvassed, but not ultimately accepted, thoughtful views of minorities within the inquiring group.

Decisions of course can be justified by standards other than epistemic, for instance they may variously satisfy legal or moral standards. So a decision can be legally justified but not epistemically justified. GDA theory thus delivers epistemic quality assurance subject only to the voluntary limitations groups impose upon themselves as they determine the standards of legal or moral justification they wish simultaneously to satisfy. Government secret services, one imagines, set extremely low standards for moral and legal justification in their pursuit of maximally epistemically justified decision outcomes.

Taking our lead from Peirce we believe that decisions, once taken, are settled only until confronted by well-grounded doubt emerging from the decision verification processes we have put in place monitoring the consequences of previous decisions. Doubt in the form of failed expectations drives inquiry, in so far as it unsettles previous decisions, thereby motivating a new process of inquiry aimed at deriving new, and more effective, decision outcomes. These new decisions have to be evaluated in terms of the degree to which they address the shortcomings of the prior decisions they will be replacing.

The debate that will determine the selection of these new decisions must meet, we feel, Grice's four pragmatic demands on the processing of judgments (Grice, 1975). These are that judgements must be maximally relevant, truthful, informative and perspicacious. If these demands are met (with the notion of truth replaced by that of epistemic justification) then the decision outcomes should be of maximum epistemic value. To ensure that the human capital of the inquiring group is fully optimised the processes of inquiry should be constrained by the requirement that all members of the group accept their personal cognitive fallibility, respect all views advanced, while recognising as the only authority that of the ‘better argument’.

There remains a theoretical danger present across the procedures of our General Decision Assurance Methodology. The danger is that the necessary degree of investigative deliberation essential to the enhancement of the epistemic value of all decision options could be lacking. We believe this tendency to prematurely acquiesce to the dominant position flows from the too-early emergence of what we term the ‘*Alpha Argument*’. As debate about decision options unfolds, its early patterns of coherence and cohesiveness derive chiefly from the structuring of the conversation that comes largely from its logical sequencing. The first emerging argument, as it unfolds, tends to build up a *momentum of commitment* within the group that has proved difficult in our consultation practice to halt. Objections to this emerging Alpha Argument appear all too often to be ill developed partly as a consequence of the time frame normally allowed for intervention. They can as a result too readily be put aside as they are in effect challenging the momentum of commitment that has been marshalled behind the emerging Alpha Argument.

Intervention can thus be left too late to be effective in challenging the general line of Alpha-Argumentation. Thus patterns of domination, grounded paradoxically we believe in the nature of argument itself, function to silence the diversity of opinion and healthy disputation that GDA theory relies upon. Constraints of time continually exacerbate this problem. This may explain the barely suppressed irritation that challenges evoke towards the end of decision-making sessions. The later in the debate that cognitive opposition emerges, the less likely it is to be taken seriously. A general requirement for intervention across all phases and processes then becomes necessary. One way out, we have found, is to break up into small groups and allow each group independently to advance their most thoughtful conjectures thereby liberating diversity by introducing counter arguments already well formulated into an investigative arena not yet dominated by an Alpha Argument. It may also be necessary to institute a procedure of re-constituting the small groups at any subsequent breakouts thus preventing self-constituted interest groups from forming.

In addition, previous publications (De Reuck et al, 1999 and 2000) have argued that the submission of the individual to the binding decision of the group for which all members take joint responsibility must be voluntary. It must be affected only by the individual recognition by members of the group that the procedures that constitute the General Decision Assurance Methodology generate outcomes that are the most democratically just achievable, while at the same time delivering decision outcomes selected solely on the basis of the most epistemically justified arguments participants are capable of advancing at the time. The decisions reached, while decisive, remain responsive to the possibility of being replaced by new decisions should they prove ineffective. As the reserve coverage preserves decision alternative - positions advanced by members of the group but not endorsed by the majority - no member of the group need anticipate their business judgments being dismissed. On the contrary, judgments not endorsed by the consensus mechanism are held for possible later resurfacing as an explicit requirement for decision adaptability.

In this sense the epistemic debate does operate on “the edge of chaos” in so far as the stability generated by the commitment to the consensus ‘best bet’ position remains tensioned by the reserve coverage which itself constitutes the possibility of a new round of decision-making. This occurs at the earliest signs of well-grounded doubt concerning the decisions taken, preventing commitment to what could ultimately be failing strategies.

Thus stability and adaptability are fused procedurally when governed by a General Decision Assurance Methodology. An epistemically informed procedural pathway pragmatically determines, under the constraints above, a maximally self-correcting process of decision-making. It is important to note at this point that “the edge of chaos”, thus interpreted, is effected within a disequilibrium conception of rationality in whose field an epistemic decision search program is procedurally realised. This decision methodology should, with due regard for the domains of responsibility, be cascaded down throughout an organisation’s successive layers of deliberative and decision-making functions.

The predictability and control offered by traditional management accounting denies organisations the adaptability a competitive and uncertain environment demands. Our General Decision Assurance theory and accompanying methodology, with its crucial capacity for optimal self-correction, we argue, drives ‘best bet’ decision-making. With ‘second wave’ management accounting becoming a sub-optimal strategic option, our Decision Assurance methodology theorises, we believe, a ‘third wave’ of more effective decision management.

CONCLUSION

We do not advocate the abandonment of budgets although the notion is instinctively appealing given the contested nature and role of traditional budgets identified in the extant literature with its overemphasis on predictability and control. We question deeply the current primacy of accounting-based budget data in organisational decision-making, and are sympathetic to the calls by those who propose that accounting data that is utilised in the decision process be supplemented by the use of performance measures that include internal and external benchmarks. These would have both quantitative (accounting and non-accounting) as well as qualitative elements including items such as the degree of innovation and creativity prevalent and fostered within the organisation. If this does not occur then the radical reform movement that does propose the total abolition of budgets will continue to build what could be an irresistible surge of momentum.

The optimal decision-making outcomes that a particular *group* can achieve is one that, we argue, maximises the collective experience of those individuals and teams that comprise the executive management and general workforce level within organisations. If organisations are to take cognisance, recognise and derive benefit from the existing high levels of knowledge or intellectual capital within the entity then organisational decision-making, at the strategic and operational levels, should not be the exclusive domain of specific individuals or very small, elite (and exclusive) groups. Effectiveness not efficiency should be the goal of well-grounded and sound decision outcomes. The adaptability and self-organising potential of the entity's agents (i.e. employees) implicit in the view of the organisation as a complex adaptive system has to be harnessed by an inclusive rather than an exclusive decision-making methodology.

However, the adoption of such an approach in itself requires significant organisational and management culture shifts. This naturally constitutes a major change in the internal organisational environment necessitating a thoughtful, caring and inclusive 'change management' process if implementation problems are to be avoided.

On a final note, the procedures we have argued for above are *situationally* sensitive and constitute a **General Theory of Decision Assurance Management**, articulated within an ethos of naturalism that vindicates its normative status by its procedural rationality assumptions enhancing the epistemic justification of the decision outcomes. The procedures the theory stipulates self-correct errors of judgment and serve to stabilise the decision-making group's web of beliefs. It remains throughout a refinement of Peirce's explication of the nature of social inquiry. It is open-ended in keeping with its commitment to the fallibility of our reasoning abilities, sensitive to anomalous experiences and is cognitively reassuring.

ENDNOTES

[1] A budget is defined by Horngren and Foster as a "…quantitative expression of a plan of action and an aid to to coordination and implementation." (p. 5).

[2] The Bazley et al. list of purposes of budgets includes: 1) to compel planning 2) to co-ordinate functions within an organization 3) as a form of communication 4) to provide a basis for responsibility accounting 5) to provide a basis for a control mechanism and 6) to motivate employees (pp. 530-531).

[3] Hartmann (2000) refers to this body of research as the RAPM literature i.e. the reliance placed by senior management on a construct labelled Reliance on Accounting Performance Measures (RAPM) with the evaluative criteria quantitatively constructed in accounting and financial terms.

[4] Bazley et al. describe contingency theory in terms of differing types of organizations require differing types of accounting data to function effectively and that these contingent factors can be grouped under technological, environmental and structural categories (1999, p. 396).

[5] The BBRT web-site identifies a diverse group of organisations that it lists as sponsoring the research work in this area and has membership groups set up or being set up in Scandinavia, Germany, France and Switzerland in Europe and in North America, Canada, South Africa, Australia and New Zealand. They include a majority of the Big 5 accounting firms such as KPMG, Price WaterhouseCoopers, Arthur Andersen and Ernst and Young. Other organisations (not an exhaustive list) include: Accenture, Annheuser Busch, ABB, ACCO Europe, Cadbury Schweppes, De Beers, National Power, Siemens, Sainsburys, SKF, Standard Life, Texas Instruments, Thames Waters, United Engineering and the Valmet Corporation (*BBRT*, 2000).

[6] Thomas (2000, p. 73) identifies ten reasons for the need to abandon budgets: 1) enforces top-down control over the workforce; 2) constrains knowledge workers; 3) encourages incremental spending; 4) time spent justifying last year's budget; 5) political infighting over future budgets; 6) obsolete plans lock in organizations; 7) discourages forecasting and fast responses; 8) creates unrealistic targets; 9) discourages learning from competitors' benchmarks; and, 10) discourages non-financial measures of success.

[7] Examples of high-performance organisations in this context primarily derived from American corporate experiences include AT&T Credit Corporation; Federal Express; Weyerhauser; Motorola; Kodak; Hewlett-Packard; GE Appliances; Eli Lilly and Knight-Ridder (Boyett and Boyett, 2000, pp.138-139). Similar experiences exist in other parts of the world particularly in Europe and would include those organisations who have put into practice the 'beyond budgeting' principles of the BBRT group.

[8] Pierce is viewed as the 'father' of pragmatism – the philosophical postulate that meanings of concepts must be based on the collective relationship of actions of which they are part – and through the further work of Cooley and Mead is seen as central to sociological theory on collective social action focussed on problem-solving. This social interaction among actors (agents) is viewed as a collective notion where real problems that are encountered are handled as part of the flow of actions. Pragmatism has a scientific theory approach based on a realist ontology (Pierce, 1931; Misak, 1991).

[9] The key elements of Habermas' theory of communicative action relevant to this paper are:

a) rationality is viewed as a communicative process of argument-based conversation(s) or dialogue with action oriented to developing shared understanding and consensus.
b) the dialogue should occur openly and free from domination (i.e. no power relations in force).
c) social action is based on rational (communicative), purposive calculations including the actions of other actors oriented to goals specified a priori (Habermas, 1987).

Habermas' work, including calls for its incorporation more widely in critical accounting research, is documented comprehensively in Laughlin (1987), Broadbent and Laughlin (1997) and Lodh and Gaffikin (1997).

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