A STRUCTURATION ANALYSIS OF ACCOUNTING SYSTEMS AND SYSTEMS OF ACCOUNTABILITY IN THE PRIVATISED GAS INDUSTRY

by

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Abstract

This study investigates the consequences of regulation for management control and organisational change in privatised industries by means of a case study of the gas industry. It particularly focuses on the implications of regulation for accounting systems and systems of accountability, as important management control systems. Giddens' (1979, 1984) structuration theory is adopted as an analytical framework for the study, due to its demonstrated capacity to take into account the interaction of agency and social structures in the production, reproduction and regulation of social order, together with its potential for an analysis of organisational change. A case study research method is identified as valuable for its potential to reveal a rich and detailed understanding of the functioning of management control and the factors influencing change in organisations. A framework is developed which demonstrates the suitability of structuration theory for a cultural analysis of management control and organisational change, and identifies the existence of three distinct cultures in relation to the gas industry over the ten year period following privatisation. These cultures, of public service, commercial business and competition, provide the foundation for the empirical analysis which identifies the distinctive features of each culture, highlights control problems and conflicts, and provides an analysis of the key factors leading to the emergence of each new culture. This study contributes to the body of knowledge on the impact of regulation on privatised industries by providing a contextual analysis of management control and organisational change in the gas industry, and also by providing a critique of the change which has taken place.

Keywords: organisational change; accounting and accountability systems; structuration theory; regulation of privatised industries.

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This paper reports and analyses the findings of a case study of accounting systems and systems of accountability, important management control systems, in the British gas industry during the period 1986 to 1998. These developments arose in the context of broader organisational changes resulting from the transformation of the nationalised British Gas Corporation into the privatised and regulated utility, British Gas. Giddens' (1979, 1984) structuration theory is identified as valuable for this study, given its rejection of the subjectivist-objectivist dualism which characterises the methodological debate, and its emphasis on '…both the meaningful actions of individual agents and the structural features of social contexts' (Held and Thompson, 1989, p.3) in understanding the production, reproduction and regulation of social order. It is also demonstrated to have the potential for an analysis of organisational change, as it emphasises the importance of conflict, contradiction and unintended consequences in effecting change. The paper continues with a discussion of the way in which accounting and accountability systems can be understood in terms of the interaction of structures of signification, legitimation and domination. A case study research method is identified as compatible with a structuration analysis, given the aim of case study research of '…developing a rich theoretical framework which is capable of explaining the holistic quality of observed social systems and the practices of human actors' (Ryan, Scapens and Theobald, 1993, p.118). Two case studies which use structuration theory in an analysis of organisational and accounting change and resistance to such change are reviewed. Before proceeding to the empirical analysis, the paper continues with the development of an analytical framework which demonstrates the suitability of structuration theory for a cultural analysis of management control and organisational change, and the identification of three distinct cultures in relation to the gas industry over the ten year period following privatisation. These three cultures, of public service, commercial business and competition provide the framework for the empirical analysis, and explication of the main structures of signification, legitimation and domination underlying each culture forms the next part of the paper. Evidence from a case study of the gas industry is presented, providing evidence of the existence of the three cultures, their implications for management control and an examination of the processes of change which led to the emergence of each new culture, with particular reference to the role of conflict and crisis in effecting change. The first empirical section examines the key features of the public service culture which characterised the nationalised gas industry and considers the control problems which led to radical change in the form of privatisation, particularly highlighting the serious accountability problems which led to a questioning of both the organisation's and government's legitimacy. The second empirical section discusses the emergence of the commercial business culture, with its new focus on profitability and shareholder value. Continuing accountability problems are highlighted and the lack of adequate accountability mechanisms to ensure public accountability of the regulator is discussed. The final empirical section shows how conflict and crisis eventually led to radical organisational change, as the regulator became more powerful, and the impact of competition and falling gas prices eventually led to the demerger of British Gas into two organisations.

This study contributes to the literature on management control and organisational change by providing a contextual analysis of these processes in the gas industry during a period of turbulent change. It also adds to the literature on contextual studies of accounting, in particular in relation to the 'transformative capacities' (Ogden, 1995) of 'new accountings' (Morgan and Willmott, 1993; Broadbent and Guthrie, 1993) in public sector organisations. In terms of methodology it demonstrates the suitability of Giddens' (1979, 1984) structuration theory as a basis for a contextual study of management control and organisational change. The results of this research have potential policy implications for the future economic and political regulation of privatised industries, including the structure of regulatory bodies as multiple service provision by individual utilities is extended in the future.

RESEARCH METHODOLOGY

Structuration theory is concerned with the relationship between agents' actions and social structures in the production, reproduction and regulation of social order. Social systems comprise the situated activities of human agents, reproduced across time and space. These systems have structures, conceptualised as rules and resources, which are the abstract codes or templates which guide actors' behaviour in social settings. Structures are seen to be both enabling and constraining of human action. Agency, the other main attribute of a social system, is defined as the intentional actions of self-conscious individuals as they interact with others in social situations.

A crucial theme of the theory is that the rules and resources drawn upon in the production and reproduction of social action are at the same time the means of system reproduction. Actors in social settings produce (or reproduce) structures, but at the same time are guided by them.

This aspect of the theory is termed 'duality of structure' by Giddens. The concept of structuration, which gives the theory its name, reflects the idea that structure and agency exist in a recursive relationship. It is important to realise that while structuration denotes the process whereby social systems usually function to almost automatically reproduce the status quo, at other times they may undergo radical change. Agents take part in social interactions in a way that presents them with the possibility of acting positively in such a manner that social codes are sometimes modified and at other times altered drastically. According to Macintosh (1994), this is an important attribute of structuration theory:

> *'Instead of limiting the analysis to a snapshot, as in many other frameworks, structuration analysis brings the dynamics of history and change onto the scene.' (p.171)*

Important to an analysis of change are the concepts of conflict (at the action level) and contradiction (at the structure level). Additionally, Giddens emphasises the notion of the 'dialectic of control', whereby all agents are deemed to have some power, except in a few very unusual situations where complete powerlessness means that they can no longer be classed as agents. A final concept relevant to the analysis of change is that of unintended consequences of action, whereby intentional actions may result in unintended consequences, which subsequently feed forward to be the unacknowledged conditions of further actions.

The mutual dependency of agency and structure, and their link via modalities is portrayed in the following diagram (Giddens, 1984, p.29), discussed in detail below:

Structure	Signification	⇔	Domination	⇔	Legitimation
	⇳		⇳		⇳
(modality)	interpretive scheme		facility		norm
	⇳		⇳		⇳
Interaction	Communication	⇔	Power	⇔	Sanction

Structures as rules include codes of signification or the constitution of meaning (signification structures), and normative elements or the sanctioning of modes of social conduct (legitimation structures). Structures as resources are the bases of power (domination structures). The modalities of structuration are the procedures which mediate between the (virtual) structure and the (situated) interaction.

In terms of the diagram above, referring firstly to signification, interpretive schemes are the cognitive means by which each actor makes sense of what others say and do. They are the 'frames of reference' and 'stocks of knowledge' used by actors in the production of interaction. Within the context of this study the shared rules, concepts and theories of free-market economics comprise a signification structure drawn upon by regulator and regulated to make sense of organisational activities. The regulatory price formula may be seen as an interpretive scheme which represents the signification structure and enables interaction between regulator and regulated in the form of communication about organisational activities.

In terms of legitimation, the structural property of morality in the form of evaluative rules connects sanction at the level of interaction with legitimation at the level of structure (Giddens, 1979, p.97). Legitimation structures consist of the normative rules and moral obligations of a social system. They constitute the shared set of values and ideals about what is important and should happen in social settings (Macintosh, 1994).
Thus in this case the legitimation structure may be seen to include the values and ideals communicated by the regulatory regime as appropriate for privatised industries, such as limited price increases, adequate standards of service, etc.. Again the price formula can be seen to embody the norms of organisational behaviour by quantifying appropriate standards and enabling the regulator to hold the regulated accountable, and to implement sanctions and rewards as required.

Looking now at domination, at the level of interaction agents' ability to exercise influence and draw on facilities or resources of power is related to domination at the level of structure. Giddens (1979, 1984) identifies two types of resources of power; command over allocative resources (objects, goods and other material phenomena) is a feature of economic institutions, while command over authoritative resources (the capability to organise and coordinate the activities of social actors) is a feature of political institutions. He also emphasises two types of power. He refers firstly to the 'transformative capacity of human action', which one may view as a positive outcome, and secondly to 'relational power' or domination, involving reproduced relations of autonomy and dependence in social interaction, which may have a more negative connotation. As Macintosh (1994) says, power in its broad sense is the ability to get things done, while power in its narrow sense is simply domination. Giddens (1979, 1984) says that all social relations involve power in both senses, but the exercise of power is not a uni-directional process. Here he emphasises the 'dialectic of control', that all social relations involve both autonomy and dependence. Macintosh (1994) emphasises that normally power flows smoothly and its far-reaching effects go almost unnoticed in the process of social reproduction. But sometimes its effects are clearly visible and understood, e.g. in times of war. While power works to constrain individuals, and gain their co-operation, it is also a medium for emancipatory effort.

In the context of this study, we can see domination structures in the exercise of power by the regulator in order to enforce the introduction of competition into the gas industry, drawing on the authoritative and allocative resources of OFGAS. The extent to which such power is transformative or coercive will be examined.

Structuration theory affords a way of making sense of the social processes which have helped shape regulatory control. It can contribute to an analysis of the changes which have taken place at an organisational level and at a wider societal level, which have led to the emergence of new social systems. As a sensitising device, it alerts us to the relevant dimensions of social structure, particularly the way in which structures of signification are inextricably linked to structures of legitimation and domination. It emphasises the crucial role of agency in the reproduction or change of existing structures. In addition, it highlights the importance of conflict and crisis in effecting change, which is a central feature of this study.

Having demonstrated how structuration theory can enable organisational change to be understood in terms of the dimensions of social structure, namely structures of signification, domination and legitimation, it is important to consider how change actually comes about. Structuration theory also offers several useful concepts to enable such an analysis of the dynamics of change, including 'duality of structure', 'dialectic of control', 'conflict', 'crisis' and 'unintended consequences of action'.

The pace of change in the gas industry was relatively slow in the initial period after privatisation, but subsequently accelerated rapidly. Giddens (1979, 1984) emphasises the importance of 'duality of structure', the interaction of agency and structure in the production and reproduction of social practices. His stratification model of the agent draws attention to three levels of consciousness and suggests that while a great deal of action takes place routinely at a practical level of consciousness, possibly rationalised at a discursive level of consciousness, nevertheless unconscious motivations also play a part in human behaviour, and that a need for ontological security, lodged in the unconscious, may sometimes explain why agents routinely reproduce systems they recognise as coercive.

Other concepts at the action level include the role of 'unintended consequences', which can subsequently become the unacknowledged conditions of future action. One example in this study which it is interesting to consider from this perspective is how management eventually chose to demerge the organisation even though this was not a regulatory requirement, and even though they had fought for years to retain an integrated organisation. The notion of the 'dialectic of control' may also provide insights here, in regard to senior management's conflicts with the regulatory bodies, since as Giddens (1979, 1984) says, every actor has some resources under his control, otherwise he ceases to be an agent. In demerging the organisation, management may have felt that they were exercising what power remained with them. It is also a useful concept in analysing how senior management pushed through change in the face of possible opposition at lower levels in the organisation.

The final concepts to discuss are those of 'conflict' and 'crisis'. As Giddens says (1979, 1984), in critical or crisis situations conventions and social codes may be abandoned in favour of new ones, with agency taking overt control to reshape prevailing social structures. This study will reveal many instances of conflict between regulator and regulated, as a battle for control was fought over several years, and the eventual crisis faced by British Gas management as encroaching competition eroded their market and put the survival of the organisation at risk.

The next section will demonstrate the suitability of a structuration analysis for an understanding of accounting and accountability systems, by explaining how their functioning can be understood in terms of the interaction of agency and structures of signification, legitimation and domination.

STRUCTURATION THEORY, ACCOUNTING SYSTEMS AND SYSTEMS OF ACCOUNTABILITY

Structuration theory is useful for a study of accountability and accounting systems, as has been demonstrated in a number of previous studies, including those by Roberts and Scapens (1985), Capps et al (1989) and Macintosh and Scapens (1990).

Roberts and Scapens (1985), drawing on structuration theory, outline a framework for understanding how systems of accountability work in organisations. They say that the operation of systems of accountability in specific contexts of interaction can be analysed in terms of individuals drawing upon and reproducing structures of signification, domination and legitimation. The language of the particular system of accountability provides a structure of meanings for interaction, the signification structure. In terms of a system of financial accountability this would include 'costs', 'profit', etc. whereas in a more production-oriented organisation, such as Capps et al (1989) discuss in their study of the coal industry, the language may centre around 'tonnage', 'manhours', etc.. Systems of accountability also embody a moral order, the legitimation structure, since they define rights and obligations, including the rights of some to hold others to account. Finally, the two aspects of power defined by Giddens (1979, 1984) as constituting domination structures are also evident in systems of accountability. Power in the sense of 'transformative capacity' relates to a view of systems of accountability as a resource for organisation, enabling diverse practices to be integrated and coordinated. Power in the sense of coercion is evident in the tendency for systems of accountability to operate in one direction only, from subordinate to superior. However, stressing the dialectic of control Roberts and Scapens (1985) emphasise, reiterating Giddens (1979, 1984), that no-one is entirely without resources and those who are held accountable frequently have means at their disposal to influence the operation of systems of accountability to their own advantage. The foregoing discussion provides a number of valuable insights into how structuration theory can provide a framework for the analysis of accountability relationships in this study. To reiterate Day and Klein (1987):

> *'Accountability is the construction of an agreed language or currency of discourse about conduct and performance, and the criteria that should be used in assessing them. It is a social and political process. It is about perceptions and power.' (p.2)*

Since the giving of a financial account is often a very important basis of accountability, it is worthwhile considering how accounting systems fit into systems of accountability, and how they can both reflect and reproduce such systems. Accounting information is an important mechanism of control in the regulatory process, with some of the most important changes in privatised industries relating to a new emphasis on financial controls, and as such it is given considerable attention in this study. As Macintosh and Scapens (1990) say, in terms of structuration theory accounting systems can be viewed as interpretive schemes within the signification structure, enabling communication between regulator and regulated, and being informed by shared rules and concepts of accounting practice. In terms of the domination structure, accounting information enables the exercise of power by those who have the information, and who hold others accountable on the basis of it. The notion of dialectic of control is relevant here since, although the industry is required to provide the regulator with certain information, management clearly has some discretion over accounting policy choices, bases of cost allocations, etc., and can thus influence regulatory decision-making in this way. It also plays a key role in regard to the legitimation structure. The way in which regulation has evolved in the years since privatisation suggests there may be many instances where uncertainty provided opportunities for management and regulator to manipulate accounting information to legitimate their own actions.

The next section will discuss the reasons for adopting a case study research method, and will demonstrate the compatibility of such a method with a methodology based on structuration theory.

RESEARCH METHODS

A case study method was adopted for this research for its holistic approach to understanding organisational and accounting change, given that it enables researchers to:

> *'…develop a rich theoretical framework which is capable of explaining the holistic quality of observed social systems and the practices of human actors. (Ryan, Scapens and Theobald, 1992, p.118)*

Scapens and Roberts (1993) provide an example of an explanatory case study (Yin, 1989), in which they investigate why resistance to change took place in one organisation:

'…the objectives of the study are to explore the complex web of social processes which comprise accounting change, to illustrate their historical and contingent character, and to illustrate how the process of change can inadvertently create the conditions which defeat the content of change.' (p.1)

The authors emphasise that their objective is not to derive universal truths or generalisable theories, but rather to explain the social processes at work, and thus illuminate the reasons for the failure of a project to introduce a new accounting system into an organisation, when on the face of it the organisational actors involved, both unit and divisional managers, recognised the need for improved information systems. They use Giddens' (1979, 1984) structuration theory as a 'sensitising device' (p.3) to help them interpret their research findings, but again state that the role of theory in this methodology is not to generalise but to explain, with explanations coming from the case, not from an imposition of a theory on the case. Structuration theory enabled the authors to explain the failure of the project in terms of resistance to the imposition of a new interpretive scheme, in the form of superseding the language of production with the language of accounting, as well as to reveal the complexity of the domination structures in the organisation and their role in the failure of the project.

Another study which uses a structuration theory approach in conjunction with a case study research method is that of Capps et al (1989). Their discussion of the mining culture in an Area of the National Coal Board, and the resistance to attempts to introduce private sector financial models reveals how colliery life was understood in terms of the signification structures of a production perspective, rather than those of a financial perspective. They explain how this persisted in terms of the domination of engineers at management level and the legitimation of their position due to the overwhelming concern for underground safety and the preservation and security of the local community whose livelihoods depended on coal.

These studies provide support for the suitability of the case study method for research into organisational change, as well as for developing an understanding of resistance to change in public sector organisations. Hence, a case study method was adopted for an analysis of change in organisational control in the privatised gas industry. The case study consisted of semi-structured interviews with staff in the industry and relevant regulatory bodies, and other interested parties. To enhance the reliability of the findings and the validity of the analysis the well-established technique of 'triangulation' (Ryan, Scapens and Theobald, 1992) was employed, where multiple data sources are used in an effort to obtain corroboration of evidence. Thus, interviews were conducted with individuals in different parts of British Gas and outside who might be expected to give different perspectives, and the interview results were complemented by observation of practices and review of documentary sources, such as company documents and media reports.

Twenty eight tape-recorded interviews were carried out over a six month period, including eighteen with senior management of British Gas in the fields of Finance, Regulatory Affairs and Personnel.[1] It is important to note that interviewees were selected based on advice from personal contacts[2] as to who were the most knowledgeable and relevant people to speak to, rather than as a result of being directed towards only those who would provide the 'party line', as might have occurred had it been necessary to seek permission from e.g. a Managing Director in order to conduct interviews. Discussions with such a broad range of senior management, targeted at individuals who had been with the company since pre-privatisation days, provided a rich source of valuable information to address the research questions of this study.

Additionally, interviews were held with 2 individuals from the Office of Gas Supply (OFGAS), 2 from the Monopolies and Mergers Commission (MMC), 3 new competitors in the industry, 1 consultant (former City analyst in Oil and Gas) and 2 academics with a particular interest in regulation of privatised industries. Interview material was supplemented with desk research, including review of regulatory reports, financial statements, company documents and media coverage, as well as a review of the academic literature relating to privatisation and regulation. The broad spectrum of interviewees, including some individuals 'on the other side of the fence' from BG management, such as competitors and staff from the office of the regulator, coupled with a wide range of documentary sources, lends weight to the validity of the findings.

[1] While it might be suggested that restricting the focus of interviews to management at such a senior level could lead to a biased point of view being provided, it was considered important for this study to target those people who were directly involved in, and responsible for dealing with regulatory issues.
[2] The author was previously employed by British Gas as an accountant , and former colleagues were contacted for help in gaining access to relevant personnel.

The key features of each of the three cultural structures which characterised British Gas during the period of the study will now be discussed, prior to examining the operation of accountability and accounting systems in each culture, and how change occurred.

THREE CULTURAL STRUCTURES

The purpose of this section is to demonstrate the rationale for viewing the three elements of public service, commercial business and competition as three cultural structures, as a framework for an analysis of regulatory control and organisational change in a privatised organisation. The key aspects of each cultural structure will be identified, highlighting within the context of each structure the main aspects of signification, legitimation and domination. It is important to note that while the three cultures are analytically separable, and provide a valuable basis for discussing and understanding change, they are not in practice clearly distinguishable as there are in fact many commonalities across the three cultures, and indeed this is an important reason for many of the conflicts experienced as individuals involved in the regulatory process endeavoured to cope with some of the contradictions inherent in providing a public service in an increasingly commercial and competitive environment.
Smircich (1983), in discussing concepts of culture for organisational analysis, argues that it is possible to view culture either as a variable or as a root metaphor. Culture as a variable can be:

> *'…considered to be a background factor, an explanatory variable or a broadframework influencing the development and reinforcement of beliefs…it is imported into the organisation through the membership. Its presence is believed to be revealed in the patterns of attitudes and actions of individual organisation members.'* (p.343)

Some authors consider this an impoverished view of culture, and are critical of the belief in culture as something which can be imposed or encouraged by managers. Alternatively, it is possible to view the organisation as a socio-cultural system. Under this approach culture becomes a root metaphor for the organisation. Culture is portrayed in terms of systems of cognition and beliefs, patterns of symbolic discourse or manifestations of unconscious processes:

> *'…that yield and shape meanings and are fundamental to the very existence of organisation.'* (Smircich, 1983, p.353)

Smircich (1983) thus suggests that the emergence of social organisation depends on the emergence of shared interpretive schemes, and Capps et al (1989) suggest that an important part of research into culture is to elicit shared realities among groups of people. However, the latter also suggest that it is important to explain the mechanisms of the emergence and reproduction of cultures over time, and they suggest that the role of power in the transformation and continuation of culture is often understated. Since structuration theory emphasises the interaction of agency and structure in the production and reproduction of social systems, and since power as an impetus for change is an important part of the theory, Capps et al (1989) found it to be valuable for their analysis of:

> *'..continuity and discontinuities in an empirical situation with a distinctive culture and tradition, which appeared to be under threat.'* (p.217)

This study was undertaken at a time when the gas industry had undergone several profound changes which took place over a period of ten years as the result of much conflict and a number of crises. Resistance to change was evident as management battled the industry regulator and several MMC inquiries took place. This study examines and analyses the conflicts and the changes, and provides empirical evidence of the developments over the ten years following privatisation. Three distinct phases in relation to organisational change were discovered, and it is believed that the linking of structuration theory and concepts of culture offers the opportunity to develop a useful analytical framework to explain regulatory control and organisational change over the period of the study. A similar approach was used by Chan (1990) to analyse accounting regulation in Hong Kong. The framework is portrayed below:

Cultures	**Public Service**	**Commercial Business**	**Competition**
Related Signification Structures	Public Service Principles	Commercial Principles	Free Market Principles
Related Domination Structures	Citizen rights; Ministerial authority	Business Dynamics; Regulation	Competitive Market; Regulation
Related Legitimation Structures	Social obligations are accepted	Pursuit of financial success is encouraged	Market forces are preferred

The public service culture embodied the signification structures of the welfare state, with nationalised industries existing to ensure full and fair access to essential services for all at a fair price and to contribute towards providing full employment. The signification structures were reflected in related structures of domination and legitimation, with nationalised industries being accountable for provision of a universal service, recognising the rights of citizens, and being formally accountable to the public via the relevant minister, and through him to Parliament. The commercial business culture emerged in the early years following privatisation, and paralleled efforts to introduce managerialism (Hopwood, 1984, 1990; Guthrie, 1991; Pollitt, 1986, 1990) into the public sector more generally. Based on a belief that management of public sector organisations was complacent and inefficient due to a lack of market pressures to improve performance, efforts were made by government to introduce more financial accountability into these organisations. Power and Laughlin (1992, p.133) coined the term 'accountingisation' to encompass measures introduced in various areas of the public sector, including education, health and local government. Nationalised industries were privatised in an effort to introduce more financial discipline, with new domination structures as accountability to shareholders replaced ministerial accountability. Thus new signification structures based primarily on financial measures emerged, with related legitimation structures as management found themselves encouraged to pursue financial success, albeit tempered by a new domination structure in the form of the industry regulator, given that the new organisational forms were in fact privatised monopolies. Eventually, and after much conflict, the competition culture emerged based on structures of signification, domination and legitimation which were underpinned by free-market economics, and the superiority of market forces in the allocation of resources. The regulator remained as a formal structure of domination, as transition to the new culture took place, taking steps to positively promote competition and help new entrants become established in the market. The next section will discuss in more detail the signification, domination and legitimation aspects of the three cultures apparent in the gas industry pre- and post- privatisation.

PUBLIC SERVICE, COMMERCIAL BUSINESS AND COMPETITION CULTURES

Signification structures

This section will illustrate with examples the key features of each of the three cultural structures. Stewart and Ranson's (1988) comparison of public sector and private sector models offers a useful basis for understanding the signification structures drawn upon by actors in interaction in the public service and competition cultures respectively, and the relevant aspects will be reviewed in the appropriate sections. However, as this study reveals, change in the gas industry did not simply involve a move from one ideal-type to another. An interim stage is revealed in this study, termed here the commercial business culture, so the relevant section will attempt to provide some comparatives for the various aspects of Stewart and Ranson's two organisational types for that phase of organisational change.

TABLE 1. Summary of the Three Cultures

Public Service Culture	Commercial Business Culture	Competition Culture
Collective choice in the polity	Shareholder ownership	Individual choice in the market
Need for resources	Cost effectiveness	Demand and price
Openness for public action	Managerialism	Closure for private action
The equity of need	The equity of financial measures	The equity of the market
The search for justice	The search for enhanced financial returns	The search for market satisfaction
Citizenship	Consumerism	Customer sovereignty
Collective action as the instrument of the polity	Profitability as the instrument of the business environment	Competition as the instrument of the market
Voice as the condition	Consumer rights	Exit as the stimulus

The public service culture can be seen to be based on a belief in the rights of all citizens to receive essential services, leading to an organisational mission in this case to provide a safe, secure gas supply to all who required it. Some of the cultural structures, reflecting the beliefs, norms and values of organisational members, drawn upon by actors in reproducing such a culture can be seen in Stewart and Ranson's model for the public sector ideal-type.

The model emphasises that in the public domain scarce resources have to be used to satisfy unmet needs. Collective choice is involved in defining the needs and in allocating resources to meet those needs. Such decisions are reached through the political process, and all citizens have the right to a voice in those decisions. Debate, discussion, pressure and protest are all part of the process of collective action which determines which needs should be met and a just distribution of resources. Stewart and Ranson (1988) emphasise that the public are not merely customers of public sector organisations, but are a part of the organisation as citizens, and it is to the voice of citizens that government, through public sector organisations, should respond.

The public service culture was a key feature of the nationalised industries prior to their privatisation. During World War II Keynes had played an important role in influencing government policy, emphasising the importance of fiscal and monetary policy as tools of the government for managing the economy. Nationalisation was therefore to some extent a continuance of the idea of economic planning which had been essential to Britain's war effort, and which had led to the belief that public allocation of resources was preferable to market allocation. Keynesian economics can thus be seen as a stock of knowledge drawn upon by the Labour government in the setting up of the nationalised industries. The public began to expect more of government after the war, and the belief grew that everyone had the right to basic services, some of which were considered so essential that they should not be provided on the basis of profit and individual ability to pay. Principles of universal service at affordable prices were the basic signification structures underlying the creation of the nationalised industries. Safety and security of supply were also very important. However, there were disadvantages to the public being served by nationalised industries. As Macintosh and Scapens (1990) suggest, it is possible for different signification structures to inform behaviour within an organisation, compared with those informing its relationships with external parties. In the case of the gas industry, it became clear from discussions with interviewees that a conflict existed between the 'public service' ethos and the 'public sector' ethos. While the former can be seen to encapsulate the positive qualities of nationalised industries as they strive to provide a just and equitable universal service, the latter encompasses the more negative aspects, as one senior Finance executive commented:

> *'Thinking about what a public service ethos is, on the positive side is a dedication to customer service, delivery, safety and security. On the negative side is 'civil servant' – jobs for life, don't need to be responsive to the market, don't need to change processes, slow decision-making.'*

The key features of the public service culture began to be challenged when the gas industry was privatised in 1986, as a new commercial focus was introduced. The commercial business culture is characterised by new priorities based on providing consumers with a cost effective and reliable gas supply, with good standards of service. The organisational mission can therefore be seen as running a profitable and efficient business. As was pointed out earlier, Stewart and Ranson's model does not offer any insights regarding this stage of the business but some cultural structures informing organisational actors behaviour in the commercial business culture will now be suggested.

The new culture replaces the rights of citizens to have a voice in the decisions about the allocation of resources, with the right to participate in the organisation as a shareholder, and earn financial returns. The concept of the citizen is replaced by that of the consumer (Harden, 1992), who is owed a cost effective and efficient service and whose rights are limited to representation in relation to these aspects of service, rather than the right to be heard in the decision-making process regarding resource allocation. Cost effectiveness of service provision replaces the paramount considerations of equity and justice. For management, new signification structures became important, especially accounting measures of success, such as profit, shareholder value and rate of return on capital. Performance-related pay provided a significant impetus to look for more efficient ways of operating. Freedom from restrictions on investment and borrowing meant that management could look for new ways of expanding the business, e.g. overseas operations. For the public, ownership of public services as citizens was replaced by ownership as shareholders - Thatcher's vision of a shareowning democracy was promoted by a massive advertising campaign encouraging individuals to buy shares in the privatised British Gas - 'Tell Sid' posters were on every street corner. Their role as citizens with a right to receive public services was replaced by a new role as consumers in receipt of a service provided by a privatised monopoly.

The competition culture is based on the need for survival in a competitive market, appropriately accompanied by a new focus on provision of high standards of service to customers, who are no longer captive consumers but free to exercise choice in the market place. The mission of the organisation becomes one of running a competitive business successfully. Drawing again on Stewart and Ranson's(1988) comparison, some of the relevant signification structures in this culture include economic principles which emphasise the superiority of free market operations, with demand and price determining the allocation of resources. Competition, it is believed, will ensure that customers receive the most efficient service at least cost, since they can take advantage of free choice in the market. In terms of the consumer / citizen / customer distinction (Harden, 1992), the focus in this culture is distinctly on the customer. As Miller and Rose (1990) say:

> *"No longer is citizenship construed in terms of solidarity, contentment, welfare and a sense of security established through the bonds of organisational and social life. Citizenship is to be active and individualistic rather than passive and dependent. The political subject is henceforth to be an individual whose citizenship is manifested through the free exercise of personal choice amongst a variety of options. Programmes of government are to be evaluated in terms of the extent to which they enhance that choice."*

In contrast to the importance of the voice of citizens in making decisions about service provision in the public sector model, in the private sector model public views and protests are problems to be overcome, not voices to be heard. 'Exit' from the market is the signal to which the private sector responds.

Legitimation structures

Within the public service culture acceptance of the government's moral obligation to provide basic essential services and the rights of citizens to receive these services, legitimated the existence of nationalised monopoly utilities. The culture was a paternalistic one, where the company took care of its employees, providing a secure job for life with good pay and benefits. Another significant aspect was the culture of engineering excellence - top management were engineers, and safety and security of supply were considered the primary goals. Financial considerations were purely secondary. According to Birkinshaw, Harden and Lewis (1990):

> *"The only statutory guideline provided to the boards running the industries was the duty to break even, taking one year with another. It seemed to be assumed that freed from the capitalist imperative of profit, the industries would automatically serve public economic objectives, political intervention being limited to directions given in the broader national interest." (pp165-166)*

One reason for the emergence of the commercial business culture was that the Thatcher government wanted to establish the arm's length relationship with the utilities which was one of the original objectives of nationalisation, but which failed to operate successfully (Vickers and Yarrow, 1988, Veljanovski, 1987). The lack of a profit motive in public utilities, their protection from fear of bankruptcy and the lack of performance evaluation and incentives for management were all seen as factors which contributed to the problems of nationalised industries, which could be successfully addressed by privatisation. Freeing industry from 'the dead hand of the state' legitimated the changes, according to Graham and Prosser (1991), who suggest that the Thatcher governments saw the privatisation programme as a means of encouraging responsibility and independence by enforcing the self-reliance of commercial life and of the market. The government's own commercial objectives can be seen in the way in which the industry was privatised without any prior restructuring, effectively creating a private monopoly. This of course resulted in a very successful flotation, earning the government £5.6 billion.

For the first few years after privatisation, the business prospered. The first price cap set by the regulator for the domestic market was not unduly onerous. Plenty of opportunities existed to cut costs and improve efficiency, as there had been considerable slack in the nationalised industry. Early retirement and natural wastage enabled manpower levels to be reduced painlessly. Service levels improved and prices came down, so consumers were happy, and in 1993 a survey showed that British Gas was second only to Marks and Spencer for the reputation of its brand name. The company was also awarded a Chartermark for high quality of service under the terms of the Citizen's Charter, an initiative to improve quality of service provision in the public service introduced by John Major, Conservative Prime Minister at the time. Falling prices and improved standards were accompanied by rising profits. These developments, together with a continuing regard for social obligations, i.e. provision of a safe, secure supply, and regard for the needs of the elderly, disabled and less well-off, legitimated the continuing monopoly position of British Gas in the domestic market. Management started to pay themselves private sector level salaries to reflect their new status as leaders of one of the UK's top ten companies.

The beginning of the competition culture was heralded by the arrival of the second Director General of OFGAS, who took over in 1993 and undoubtedly saw promotion of competition as her primary duty. She legitimated her actions by appeal to the superiority of market forces in the optimal allocation of resources. She was viewed very much as an economic regulator who employed a staff of ten economists, whereas the previous regulator had employed only one. On the basis of making maximum effort to extend competition she legitimated extending her role to become an 'industry' regulator rather than a 'British Gas' regulator. This necessitated an expansion of her staff from thirty to over one hundred. Paradoxically, it appears that as competition grew so too did regulation. 'Unbundling ' of organisational activities, aimed at introducing transparency into the costing of different elements of service provision so that competition could be introduced wherever possible, became an important focus of regulatory activity. The combination of the above developments, accompanied by ever tighter price caps, legitimated a huge redundancy programme - over 25,000 people, one third of the workforce, were made redundant over a three year period. Frequent reorganisations meant employees had to regularly reapply for their own jobs. Focus on financial issues came to supersede considerations of engineering excellence.[3]

Domination structures

In terms of domination structures in the public service culture, the British distrust of both private and state monopolies led to the concept of state-owned industries subject to government directives on general policy but self-governing in the day-to-day running of their businesses. Nationalised industries faced external regulation by central government, by ministerial control. It was intended that the Minister, and ultimately Parliament, would be able to control the broad strategic decision-making of the business, leaving management in full control of operations. However, the Minister's definition of the public interest tended to resemble the interest of the political party in power, and political objectives led to frequent interference in operational decision-making. The ability of the government to dominate industry management by intervention through informal means over issues of pricing, employment, investment, borrowing, industrial relations and pay negotiations meant that in reality management's power was limited.

As the commercial business culture emerged, during the first five years of privatisation, the regulator was far from idle, and management's expectation of 'light - handed' regulation was disappointed. Management and regulator engaged in several highly - publicised battles, and the regulator's tenacity was responsible for some of the improvements in quality of service and reduction of prices. He turned his attention early on to attempting to introduce competition to the industrial and commercial markets, although this had not been part of his initial remit. He initiated an MMC inquiry as early as 1987, which concluded that British Gas had been practising price discrimination in the sale of gas to contract customers, which was impeding the development of competition. The company was required to cease this practice, to publish information on common carriage terms, and to contract for no more than 90 percent of any new gas field. In 1991, the OFT reviewed the situation, and concluded that British Gas

[3] Cedric Brown, the former Chief Executive and the last engineer on the Board, retired (unwillingly) in May 1996.

had complied with the requirements, but that competition had not resulted. Thus, in an illustration of the operation of the ‘dialectic of control’ (Giddens, 1979, 1984), the organisation had been sufficiently powerful to continue to operate as a private sector monopoly for the first five years of privatisation in the industrial and commercial market. However, the efforts of the regulator continued, and as the next section will reveal the emergence of the competition culture, following another MMC inquiry in 1993, saw real change begin to take place.

When the Gas Bill to privatise the gas industry was going through Parliament, there was initially no mention made of any duties of the regulator in relation to competition. Only a late amendment at the Committee stage by Michael Portillo resulted in the gas regulator having a duty to enable competition in the market above 25,000 therms. The weakness of the competition requirement at that time is widely regarded as being the price the government had to pay in order to obtain the co-operation of the Chairman of British Gas at that time for a speedy privatisation. The determination of the first gas regulator to take his duties in relation to competition seriously led subsequently to far-reaching changes in the industry. In 1991, as a result of the findings of the OFT review, and in order to avoid another MMC inquiry, British Gas agreed to halve its share of the contract market and to separate its pipeline operation from the rest of the company. Following that, there was a steady erosion of the company's market power. Competitors banded together to form the Shippers' Forum, in order to collectively represent their interests in negotiations with the regulator, and were soon providing gas to over 60% of industrial and commercial customers. Domestic competition trials were introduced in April 1996, with a view to opening that market to full competition by 1998. One outcome of the 1993 MMC inquiry was a requirement for British Gas to fully separate its transportation from its trading arm, with 'Chinese walls' preventing employees of each division from communicating with each other. The foregoing are indicative of new domination structures coming to the fore. The regulator had the power to dominate in decision-making, partly due to her ability to impose decisions without having to justify them. Under UK law such decisions are not subject to judicial review unless they are ultra vires. Should British Gas refuse to abide by such a decision, the regulator would automatically initiate an MMC inquiry, with the attendant intrusion into the business and vast expenditure in terms of management time. As Miller and Rose (1990) emphasise, the governing of economic life continued via a variety of regulatory technologies, even within the new competitive environment.

The foregoing has clearly demonstrated the value of structuration theory for an analysis of organisational change. As a sensitising device, it helps to make sense of the social processes which have shaped regulatory control. By studying the interaction of agency and structures of signification, legitimation and domination, we can gain valuable insights into the way in which structures were reproduced and transformed, and of the mutual dependency of agency and structure in the development of the regulatory process. In the public service culture, government ministers, drawing on the signification structures of public service values including universal service and equity of provision, legitimated government control of major industries by nationalisation. In the commercial business culture the pursuit of new values and measures of success, such as profitability and shareholder value, led to domination by business interests and legitimated the pursuit of financial success. The continuing monopoly power of British Gas legitimated the introduction of a new domination structure in the form of the industry regulator. The interaction of agency and structure is evident, as is the 'dialectic of control', as management battled the regulator in an effort to retain power over its own operations. Eventually, and after much conflict, the competition culture emerges, with new values based on a belief in the superiority of the free market for resource allocation legitimating further intervention by the regulator into the running of the industry.

The production and reproduction of accounting systems and systems of accountability, and how they can be understood in terms of individuals drawing upon and reproducing structures of signification, legitimation and domination, together with an analysis of events which provided an impetus for change, forms the subject of the remainder of this paper.

SYSTEMS OF ACCOUNTABILITY AND ACCOUNTING SYSTEMS IN THE THREE CULTURES

Public service culture

Day and Klein (1987) identify three aspects of accountability, political, managerial and moral, all of which are relevant for this study. In terms of the public service culture, firstly political accountability is that of the Secretary of State to Parliament; secondly managerial acccountability is that of industry management to the Secretary of State; thirdly moral accountability is reflected in the particular signification structures which the accountability processes reinforce, and their related legitimation and domination structures which operationalise particular norms and moral values by enforcing rights and obligations. This reflects the way in which structures of signification, legitimation and domination are drawn upon to produce and reproduce systems of accountability. In the public service culture political accountability is very important, given that the nationalised industry should be seen to be run in the public interest. Drawing on signification structures which emphasise citizens' rights to equity and justice and openness for public debate and action, systems of accountability were set up with the aim of ensuring that industry management were publicly accountable via the relevant Secretary of State to Parliament. However, an examination of the domination structures in existence reveals some of the accountability problems which existed for nationalised industries, and the extent to which the role of accountability as a means of coercion can take precedence over its role as a resource for organisation. In terms of political accountability, several authors discuss the problems. (Glynn, 1993; Normanton, 1971; Vickers and Yarrow, 1988). Although Ministers were answerable to Parliament for actions they took, they were still able to exert informal pressures on management without accountability. This led to a situation where very few formal directives were issued but where the threat of their use, together with ministerial powers for appointment to the Board, enabled politicians to intervene informally to a significant extent in decision-making. The Minister legitimated his interference by reference to the public interest, but this tended to be defined according to the interests of the political party in power. Despite the issue of several White Papers over a period of twenty five years, accountability did not develop effectively to ensure the protection of the public interest, and was thus at odds with the purported signification structures on which nationalised industries were founded.

Day and Klein (1987) emphasise the centrality of well-defined objectives to programme and effectiveness aspects of systems of managerial accountability. Again several deficiencies are clear with respect to accountability of management to Minister. The legislation pertaining to the duties of the nationalised industries tended to be couched in very general terms. While the White Papers tried to progressively improve the definition of performance measures their success was limited, as the industries' management were still plagued by the problems of inappropriate ministerial intervention, and thus lacked adequate authority and independence to pursue stated objectives. It is important to note, however, that these deficiencies did not all work against the industries' management. As both Glynn’s, (1993) and Normanton's (1971) discussions reveal, the lack of accountability protected the industries from too much scrutiny, a factor which may explain why an unsatisfactory system persisted for so long, and despite the efforts of several White Papers to improve matters.[4] The power of nationalised industry chairmen was referred to by several authors and interviewees:

> *'The management style was one of benevolent autocrat. It came from people like Sir Denis Rooke (former Chairman) who was a bully, basically. Very good for the customers and the industry. 'I know the answer – get on with it. But I'll look after you and I'll look after the customers and make sure it works. And I'll keep those thieving politicians out of the way.''* (Senior Personnel executive)

In terms of structuration theory, it may be that agency interacted with existing structures to reproduce rather than significantly change them, since there were benefits to both ministers and management in maintaining the status quo - the dialectic of control between the two parties was maintained. The 1976 NEDO Report revealed the extent of problems in running nationalised industries and called for radical change.

The White Papers issued in 1967, 1976 and 1978 tried to deal with the problems of accountability and control of the nationalised industries by focussing mainly on the implementation of stricter financial controls, including investment criteria, financial targets and controls and pricing policy, thus emphasising the importance of accounting information. In analysing developments in the use of financial information, this study emphasises accounting as a situated political practice, fulfilling an important role as a technology of social and organisational control, and having the ability not only to reflect but also to constitute reality. It is worth reiterating Miller and Rose's (1990) concept of 'government at a distance', which refers to the diversity of regulatory mechanisms which link the conduct of individuals and organisations to political objectives through 'action at a distance'. They cite the use of investment appraisal techniques in nationalised industries, as an example of an 'intellectual technology', a mechanism which links calculations at one place with action at another, facilitating the governing of economic life. In structuration terms, the use of such techniques, as well as the other financial control mechanisms introduced by the White Papers, can be seen as part of the emergence of new structures of signification, emphasising not only the public service duties of the nationalised industries but also the importance of fiscal

[4] Glynn's (1993) comments that directives to enhance accountability of industry management would have led to the release of commercially sensitive information seems to be a poor excuse in view of BGC's massive monopoly power, but is echoed later in management's battles with the regulator post-privatisation, albeit with less success.

prudence. By introducing financial measures similar to those used in the private sector, efforts were made to restrict the relative autonomy of the engineers who ran the business, and to limit the pre-eminence of engineering considerations in decision-making.

Accounting systems can be viewed as interpretive schemes within the signification structure (Macintosh and Scapens, 1990), enabling communication between regulator and regulated, and being informed by the shared rules and concepts of accounting practice. The introduction of new financial techniques is illustrative of an attempt to introduce new shared understandings of the purposes of the organisations. The extent of their success appears to have been limited, as comments from industry management suggest that they believed themselves to be sufficiently accountable and fiscally prudent:

> *'BG was a heavy contributor to public funds.'* (Finance executive, Treasury dept.)

and

> *BG saw itself as a good company, a disciplined cost-conscious company. It was a good nationalised industry.'* (Senior Finance manager)

These new techniques were intended to enable government to exert control over industry management from a distance, by holding them accountable for achieving financial targets. Roberts and Scapens (1985) suggest that the use of accounting systems to achieve distanced forms of accountability may be seen as more coercive than their use in face-to-face situations, since the information is more likely to be interpreted in isolation from the context on which it is reporting. This is likely to lead to greater efforts on the part of those who are held accountable to limit the information released. Industry Chairmen were certainly concerned to retain as much autonomy as possible, and accounting matters were an important feature of discussions for the Nationalised Industries' Chairmen's Group. Given that the Chairmen were all engineers, one could expect some resistance to increased financial accountability.

The industries were required to publish accounts in similar format to those of private sector organisations, possibly another attempt to signify to management that they should operate as far as possible like a private sector organisation, but the Minister was entitled to stipulate certain requirements in relation to form and content, thus retaining some power over published financial information. The dominance of the Minister is also illustrated by the requirement that the auditors reported to him, rather than an independent body (Glynn, 1993). Management did not feel unduly pressured by public reporting requirements, given the relatively restricted audience interested in the reports, and the relatively relaxed timetable, as evidenced by comments from two interviewees:

> *'For a nationalised industry, readers of accounts were primarily Parliamentarians…Accountants, auditors are now much more concerned about what they sign off on. Price Waterhouse now have to answer to the Stock Exchange if accounts are unsatisfactory. Previously, the accounts were a matter for British Gas, Price Waterhouse, the Department of Trade and Industry and the Department of Energy – more incestuous.'* (Treasury department executive)

and

> *'Pre-privatisation, all we had to do was to produce annual financial accounts and submit them to the Department of Energy. It was a relaxed timetable, and there were no Stock Exchange or shareholder pressures.'* (Finance manager)

Puxty (1997) provides an interesting analysis of the use of current cost accounting (CCA) in the accounts of British Gas, in which he asserts that the decision to retain current cost reporting for the main published accounts after it had been made non-mandatory was a legitimation device used by management to report lower profits, in the face of a public outcry against high profits, partly resulting from a government directive to increase prices to bring them more into line with those of electricity.

The foregoing provides further evidence of the lack of satisfactory accountability mechanisms, and the failure of the White Papers to effect significant organisational change in terms of new meaning structures, and related structures of legitimation and domination. The conflicts which existed in the running of the industries were not adequately addressed by the new calculative technologies, and as mentioned above, the government eventually decided that full-scale privatisation was required.

It was also pointed out by several people that engineers were usually the top people in the organisation, and those with most power:

> *'It was a command and control culture, dominated by engineers. Decision-making then was pick up the phone, tell somebody down the line to open a valve and let the gas pass through.'* (Senior Personnel executive)

One effect of this was that most decisions regarding the direction the company would take were essentially engineering rather than financial decisions. Being structured as a nationalised monopoly obviously facilitates such an approach, since commercial constraints are largely absent. The accounting function was thus subservient to the engineering one.

It is evident that the systems of accountability in operation were in conflict with the objectives of the public service culture of which they were a part. One important unintended consequence of this was that increased government interference over the years had led to the public perception that nationalised industries were run directly by the Government, so that the Government was held responsible for their failures and problems. Poor performance and industrial relations problems were seen as failures of the Government, rather than of the industries' management teams. In May 1985, the Government announced its intention to privatise the gas industry, which it did under the Gas Act of 1986. The business of the British Gas Corporation was transferred to British Gas plc. All the ordinary shares of British Gas were sold in December 1986 at a market capitalisation of £5602.5 million. Government thus attempted to exert its power to effect a radical change in the running of the industry, in order to extricate itself from a situation where its legitimacy was being called into question. The extent to which radical change occurred will be discussed in subsequent sections.

Commercial business culture

There are several important changes to accountabilities which took place as a result of privatisation. In relation to moral accountability, the Gas Act 1986 instituted a new social and political process of accountability in the setting up of the new regulatory body. In doing so it provided a new structure of meanings, a new language of accountability, in defining the rights and duties of regulator and regulated, embodied a new moral order in giving the regulator the right to hold the industry to account and provided the associated resources of domination. Similarly, a new accountability to shareholders increased the emphasis on the language of financial accountability, and legitimated the pursuit of profit and improving shareholder value.

A new system of political accountability was instituted with the appointment of a regulator and the setting up of the Office of Gas Supply (OFGAS) to oversee the privatised gas industry. The first regulator's duties to the public interest under the original legislation included a primary duty of ensuring universal service, and secondary duties in relation to consumer protection and promotion of competition. He also was required to ensure that BG remained financially solvent. The primary means of regulation is the setting of a price formula, of the form RPI-X, which limits price increases that the industry can impose and thus forces it to improve efficiency of operations. The regulator's duties include setting and reviewing the price cap and the industry's compliance with it. Although formally accountable to Parliament, the extent to which the regulator is publicly (politically) accountable is a matter of considerable controversy. Public accountability is constrained by the fact that the regulator cannot fully disclose the basis of his decisions due to commercial confidentiality.[5]

Other changes are in relation to managerial accountability as the Board, instead of being accountable to the Minister, became accountable to the industry regulator. Additionally, it was accountable to its new owners, the shareholders, which introduces a new emphasis on the language of financial accountability and legitimates the pursuit of profit and enhanced shareholder value. Conflicts exist in the objectives of regulators and shareholders, which in turn create conflicts for management in trying to satisfy the requirements of both. The environment facing a regulated industry is clearly much more complex than that facing an ordinary organisation in the private sector (Ogden, 1995). Prior to the advent of privatisation, the division was between public and private sector organisations, where management of the former had political accountability and of the latter shareholder accountability. An important objective of privatisation was to remove the nationalised industries from political control, in the belief that control by the market would ensure greater efficiency. However, the existence of the regulator complicates matters, as the regulator defines the economic environment to some extent, by imposing the price-cap and imposing standards of service which the industry must meet. This reduces management's autonomy in decision-making, which in turn reduces the extent to which shareholders can hold management accountable for financial results. Nevertheless, incentives which attempt to ensure goal congruence of managers with investors, such as performance-related pay and share options, are based on financial performance achieved in the face of regulatory changes. The lack of market pressures facing a privatised monopoly impedes an assessment of management performance.

Just as financial controls were an important feature of efforts to achieve accountability and control in nationalised industries, so they should also be central to regulatory control in

[5] In addition, the English legal system is not conducive to full disclosure, since when a regulator does not provide reasons for his decisions, the law will not seek to challenge these decisions provided they are not 'ultra vires', i.e. beyond the regulator's powers.

privatised industries, and one would expect accounting information to play a key role in regulatory decision-making. Accounting systems increased in importance as interpretive schemes enabling communication based on new shared understandings of the purpose of the organisation in relation to external reporting to shareholders. These understandings were informed by new signification structures such as profitability, shareholder value and economy, efficiency and effectiveness. More questionable is the degree of shared understanding between management and the regulator, as management's pursuit of profit for shareholders is at odds with the regulator's objectives of lower costs for consumers.

Following on from the earlier discussion of Miller and Rose's (1990) concept of 'government at a distance', we can see the price formula as a successor to initiatives such as investment appraisal techniques in nationalised industries as an 'intellectual technology' linking calculation at one place with action at another, facilitating the governing of economic life. Developments in the application of the price formula, from the initial perception of 'light-handed regulation' to the increasingly intrusive information demands and increasing complexity of the formula are illustrative of Miller's (1992) view of accounting's role in decision-making. He suggests that as the shortcomings of one calculative technology are revealed, this does not discredit it, but simply leads to the emergence of new ones, in the conviction that:

> *'..there exists a calculable answer to the problems of the enterprise and even of social life.' (p.80)*

Accounting systems, as discussed earlier, can be viewed as interpretive schemes within the signification structure, facilitating communication between regulator and regulated. They embody the new language of accountability by requiring the regulated activities of the gas supply business to be accounted for separately from the other business activities. The original regulatory accounting requirements for BG were specified in Condition 2 of its Licence. BG was required to prepare and have audited separate accounts for the gas supply business, consisting of a profit and loss account and a statement of assets and liabilities, excluding taxation and any capital liabilities and interest not relating solely to the gas supply business. It was also required to produce an interim profit and loss account. As far as possible, the regulatory accounts were to be prepared using the same format, principles and policies as the annual accounts. The accounts had to show separately cost allocations and apportionments between the gas supply business and any other business of the company. Any change in a basis of allocation or apportionment had to be agreed by the regulator. The regulatory accounts had to be published, with the exception of information on the bases of allocations and apportionments. Under Condition 7 of the Licence the DG OFGAS had the power to request additional information necessary for him to perform the functions assigned to him under the Gas Act. Carey et al (1994, p.14) identify the accounting information needs of regulators as including the following:

- provision of information for regulatory reviews, including setting the price cap and monitoring investment and return on capital

- enabling the viability of the regulated business to be assessed separately from the business of the regulated company as a whole, and the identification of possible cross-subsidies between regulated and non-regulated activities

It is clear that satisfying the above objectives will require a great deal more information than will be provided in the basic regulatory accounts, and that the regulator's powers under Condition 7 could mean that a regulated industry finds itself facing huge demands for accounting information, with no onus on the regulator to justify his demands. It was the ever-increasing ad hoc requirements for additional information that BG management found most frustrating and costly, especially when the purpose of the request was not always apparent:

> *'The regulator should not be a sink of information. What they've got is lots of data, not information. Sometimes they forget the questions they've asked before, and that the answer has been provided. Sometimes it's impossible to answer the question in the form it's been asked. It's convincing them that you're not hiding anything, that this is the best you've got available.'* (Senior Finance manager)

The fact that when the regulator's decisions were handed down there was usually no justification provided for their basis did not help management to understand the use to which information had been put. Given the importance of accounting information to regulatory decision-making, it is useful to examine areas where opportunities exist for management and regulator to manipulate it in order to further their own ends, and to provide legitimacy for their decisions.

Unlike several privatised industries, BG retained its nationalised industry practice of reporting financial results on a current cost basis, ostensibly because it considered current cost accounting (CCA) the most appropriate for a capital intensive industry with long-lived assets. It is possible under CCA to adopt either an 'operating capital maintenance' (OCM) approach or a 'financial capital maintenance' (FCM) approach. The former approach, utilised by BG, emphasises the need of the company as a producer to preserve operating capacity. The latter is more useful to the regulator in assessing the extent to which investors' and customers' conflicting interests are being satisfied by an adequate, but not excessive, level of profit. In a capital intensive industry such as BG, the CCA depreciation adjustment is very large and the ability to manipulate this figure, based as it is on subjective asset revaluations, could be useful to management in trying to legitimise arguments for a less onerous price-cap by portraying low CCA profits. On the other hand, historic cost accounting (HCA) profits, the main interest of the financial markets, remain unaffected.

In identifying an appropriate rate of return for the network, the regulator has to attempt to identify the cost of capital of that aspect of the business. The value attached to fixed assets, a major element of capital employed, will obviously have a strong impact on rate of return calculations. Although regulation of the RPI-X form was meant to avoid the problems of rate of return regulation, it is clear that regulators have subsequently recognised the importance of this measure, and indeed the 1993 MMC Report recommended rates of return of between 4 and 4.5% on existing assets, and between 6.5 and 7.5% on new assets. Opportunities are afforded by CCA for revaluation of fixed assets, using appropriate indices, once again possibly providing scope for influencing regulatory decision-making. Upward revaluations of fixed assets would also increase current cost depreciation in future years, thereby reducing the numerator in the rate of return calculation as well as increasing the denominator.

In their investigation, Carey et al (1994) discovered that in 1985, shortly before flotation, BG increased the lives of many assets. Depreciation was written back so that assets were held at the value they would have had if the revised lives had always been in force. They calculate that this added over £3 billion (30%) to the CCA net value of assets and £150 million to the annual depreciation charge. The suspicion with which BG's adherence to CCA was viewed is well-illustrated by an editorial from the Daily Telegraph (10 June 1986), discussing the fact that BG's accounts, subsequent to privatisation, would provide supplementary HCA information in addition to the main published CCA accounts:

> *'Next month the 1985-6 results will reveal, for the first time, just how profitable British Gas really is. The figures will be calculated on the basis of accounting used by everyone else, not the funny money Sir Denis has favoured in the past.'*

Puxty (1997) suggests that one reason for this new policy was that as a prelude to privatisation it was necessary to publish the annual accounts on the same basis as those of private sector organisations. It is interesting to reflect here on how CCA accounting as an interpretive scheme was used by BG to constitute a particular reality, which was at odds with the financial reality of almost every other organisation in the U.K. It can be argued that financial information is used to legitimate regulatory decision-making, and the reporting of lower levels of profit could provide legitimacy for BG in the eyes of the public - it may be that after public outcries against large profits in nationalised industry days, management was anxious to avoid similar criticism given that it had retained monopoly status in the private sector, and that there could be complaints about excessive returns to shareholders. The tightening of the price formula, together with increased regulation aimed at fostering competition, led to the start of what was subsequently to become a huge redundancy programme, again legitimated by appeal to new signification structures, and the further erosion of the public service culture and its replacement by the commercial business culture.

Accounting's role as a technology of social and organisational control, able not only to reflect but also to constitute reality has been demonstrated in this section, as we have seen new accountings emerge to shape and reflect new organisational realities.

Competition culture

As was discussed in the previous section, the Gas Act of 1986 instituted a new social and political process of accountability in the setting up of OFGAS, by providing a new structure of meanings for interaction, legitimating the regulator's right to hold industry management to account and providing the associated resources of domination. The Gas Act of 1995 added a new element to the language of accountability when it provided the regulator with additional powers, particularly in relation to the introduction of domestic competition. New signification structures emphasising market forces and freedom of choice in the market were emergent. The previous section also questioned the extent to which the regulator has adequate political accountability, and this section provides additional reasons for criticism of this aspect of the regulatory regime, in relation to both political responsiveness and stewardship. Systems of accountability have been recognised as having the capacity to provide a resource for organisation, as well as a resource for coercion, and given the considerable authority which the regulator has, it is important to consider the accountability process whereby she is held answerable for the consequences of the far-reaching decisions she is empowered to make.

A notable development in the area of accountability was a commitment on the part of the second BG regulator, Clare Spottiswoode, to more consultation and transparency in the regulatory process. Consultation documents were produced on all major issues, and views sought from a wide variety of contributors, as evidenced in a statement in a document published in June 1995, entitled 'Price Control Review British Gas' Transportation and Storage' :

> *"OFGAS wishes to conduct this review in as open a way as possible and to take into account the views of all interested parties. This document therefore sets out the background and invites views on the principles and processes to be applied in the review including the form of the new control. Views are sought from all interested parties including customers, customer groups, shippers and suppliers." (p.4)*

One interviewee, of BG Regulatory Affairs, pointed out that being unaccountable has disadvantages as well as advantages:

> *"Accountability has two sides to it. The noise made by regulated companies and politicians is regulators have undue discretion but don't have to explain themselves to anyone, so we don't know why they take decisions. We had a situation where a change of regulator caused some changes in policy. It was a different personality taking a different interpretation of the same situation, so it was a bit unstable. The other side of accountability has begun to worry the regulators - what are they actually accountable for? If you have a wide remit, that's fine and you have these powers and can take decisions and no-one can challenge you. But then you realise that if things don't go quite as well as everyone thinks they should, then you get the blame for everything. Why should you, because it's not clear what you're actually accountable for? Some of the regulators are now saying we need to have more precise terms - there needs to be more accountability. I think regulators are now finding it's fine to take wide powers against an incumbent monopolist, but once you start regulating competition in that industry it's a much more complex thing because you have many more players and the question of equity between different players comes into effect."*

The regulator was clearly concerned that inadequate accountability threatened her legitimacy. Although the DG attempted to improve consultation procedures, there were still many critics who complained that consultation does not itself improve accountability for decision-making, in that decisions could still be imposed without adequate reasons being given. Decisions on major issues which have been the subject of consultation are published in a document entitled 'The Director General's Decision', which includes a summary of responses received by OFGAS on an issue, followed by a summary of the DG's position on the issue and finally implications/amendments to BG's Authorisation required to implement the decision. The summaries tend to be brief, although OFGAS does try to place as many responses as possible in the library, where they are available for consultation by the public, subject to requests for confidentiality from respondents.

Another area of concern is the extent to which the regulator can choose to prioritise the duties imposed upon her in the Gas Act. According to a regulatory consultant:

> *"If you read the Acts the number of primary and secondary duties appear very comprehensive. If you look at the documents coming out of OFGAS now, you will see that they centre on one duty only, and that is the promotion of competition. There may be what looks like a fairly broadly-defined set of duties but in practice regulators, certainly in the gas industry, are free to concentrate on what they choose."*

Certainly in the June 1995 OFGAS price control review document for Transco, it is stated:

> *"Given the duties placed on the DGGS by the existing and anticipated new legislation, the principle that will drive the setting of the Transco price control is that the regulator needs to seek to promote competition where feasible and regulate as a surrogate for competition where it is not."(p.18)*

The foregoing has identified a number of problems in relation to the public accountability of the regulator. In terms of political responsiveness there are shortcomings in the reporting requirements of the regulator which mean that, although her duties are broadly defined and appear quite comprehensive, there is in fact considerable scope to choose which duties to prioritise. In the view of some respondents in this study, this allowed the gas regulator to concentrate her efforts on competition, to the exclusion of other concerns. This is reflected in the quotation in the previous paragraph, as well as in the need felt by the Gas Consumers Council (GCC) to retain its independence from OFGAS to better represent and protect the interests of customers. These views question the new moral order, highlighting the potential conflict between competition and customer rights, and questioning the validity of the regulator's focus on the introduction of competition wherever possible. These problems provide the opportunity for systems of accountability to better serve coercion rather than operating as a resource for better organisation and improvement of operations. That the criticisms were justified is confirmed by the fact that the regulator herself publicly called for more accountability to be required of her office.

In relation to managerial accountability numerous problems were also identified. As the regulator began to encroach further and further into the running of the business, it became very difficult for management to know what they would be held to account for next, and when their own authority to run the business would be further undermined. Many of the problems of accountability identified in relation to inappropriate informal intervention by Ministers in nationalised industry operations are echoed here and it can be argued that the ensuing conflicts in both cases eventually resulted in a crisis situation leading to a decision to effect radical change in the structure of the industry, as management eventually decided to demerge the organisation. Another problem for management is in relation to conflicting accountabilities to regulator and shareholders. The increasing power of the regulator effectively eroded the power of shareholders, as stronger regulation and the uncertainty engendered by so much change eroded the value of investments. Evidence also exists of the disadvantages to customers in terms of much poorer service standards, resulting in a greatly increased level of complaints and loss in 1995 of BG's Chartermark, awarded in 1993 for ‘excellence in public service’. Thus we see the signification structures of the commercial business culture, of shareholder value and profitability, superseded by new structures based on a belief in competition and customer choice in free markets, informing and changing accountability relationships, and we see that the change is not unproblematic.

The consultation process developed by OFGAS required a great deal of information from BG, and led to a need for extensive use of consultants to analyse the information provided, given that much of the information was financial in nature and OFGAS employed only two accountants on its staff. Consultants were also used by interested parties to prepare their submissions to OFGAS on key issues. Several large shippers banded together to form the Shippers' Forum to enable them to jointly represent their interests to OFGAS. The extension of regulation which has taken place over the last few years, as documented above, led to greatly increased demand by OFGAS for financial information from BG, and also to much more in-depth examination of the financial aspects of the business. This section will examine the way in which accounting systems, as interpretive schemes within the signification structure, give visibility to new aspects of organisational activities, and enable new associated legitimation and domination structures to emerge.

Two price formula reviews were carried out in 1997, one for Transco and one for the rest of the plc. Emphasis on unbundling of activities to ensure competition wherever possible, meant that the costs of operating the different parts of the business had to be identified. The need to 'understand our costs' was referred to by many interviewees, who all emphasised that this had not been a priority when they were running an integrated business. One outcome of regulatory information requirements was the adoption of activity based costing (ABC) to enable provision of information about different parts of the business:

> *'A major benefit will be getting a better understanding of our business. One of the things we've got to understand for competition is: 'What does it cost us to supply different sorts of customers?' we can't deal with our 18 million customers as a homogeneous mass anymore…We're trying to segment our market to get proper cost reflectivity in each market, and know how much we can put in to fighting to keep these customers, and charge cost reflective tariffs. ABC is going to be a key weapon in doing that.'* (Finance manager)

The recognition of the value of ABC for running the business led to the subsequent decision to implement it throughout BG.

The consultation document issued by OFGAS in June 1995, 'Price Control Review British Gas Transportation and Storage', indicated the regulator's intention to focus on, among other things, a detailed examination of Transco's operating costs, cost of capital and asset valuation. She stated that she would require forecast information on Transco's expected capital and operating expenditure for the next 25 years, based on a range of scenarios. The information would be subject to efficiency studies, including consideration of whether anticipated technological developments would extend the life of assets and reduce their replacement cost in the future, as well as consideration of how actual expenditure since 1992 compared with that claimed as necessary by BG at the time. In considering the cost of capital she pointed out the importance of identifying the appropriate regulatory value of assets for BG plc and also the proportion of these attributable to Transco. Consideration was also given to whether a cash basis of regulation would be more appropriate than the existing method whereby depreciation was included in the cost base when setting the price formula. The reason for this was that Transco's capital expenditure profile is not smooth. A report issued by BZW on 26 September 1995, entitled 'OFGAS piles on the agony' pointed out that at that time Transco's expenditure on replacing the pipeline network was running at less than a quarter of current cost depreciation, meaning that under the existing price control the business was hugely cash positive. In theory Transco should have been building up cash reserves for use when the bulk of the pipeline network became due for replacement around the year 2010. OFGAS identified its concerns as follows:

> *"The regulated company may receive at least three types of benefit from depreciation being included in its cost base when depreciation is in excess of capital expenditure. First, depreciation itself makes no allowance for the interest benefit from receiving income in advance of expenditure. Second, technical progress will probably have ensured that, when eventually replaced, the asset will cost less than implied by current cost depreciation which has been computed on an indexed or modern equivalent asset basis. Third, accounting lives of assets will be 'prudent' and there is a high probability that the assets will, in fact, last longer, thus magnifying the first two effects....It is possible that customers will pay now to build up reserves which are not subsequently required on the same scale or timescale. The point has also been made that if the company was allowed to raise cash in excess of expenditure requirements in the present period, the cash when required at some point in the future might not be available. "(p.26)*

BZW identified the likely financial impact on Transco of such a change as reducing the level of revenue BG was permitted to earn by £1,000 million during the period 1993/4 to 1996/7, a reduction of almost 10 percent.

The foregoing provides clear evidence of extremely detailed involvement of the regulator in the financial affairs of the business. Detailed consideration of financial issues such as bases of asset valuation, operating costs, cost of capital and depreciation policy certainly provided new visibility to many aspects of organisational activity. The regulator used accounting as an interpretive scheme to help initiate a new shared understanding of organisational purpose, based on signification structures of competition and free market principles, legitimated by an appeal to the superiority of market forces in providing the best deal for the customer, and drawing on domination structures provided to her in the Gas Acts, which meant that she has a great deal of power to demand information on all aspects of the business. The contrast between the content of the regulatory accounts, prescribed by statute, and the information demanded by the regulator on an adhoc basis is enormous. In addition, she did not restrict herself to basing decisions on historic information, but predicted the likely impact of future technological developments on the costs of running the business in years to come, and adjusted Transco's allowable costs accordingly. The developments described here provide real evidence of the potential of accounting for effecting organisational change. A senior

Finance manager also commented on the drain on resources which regulatory information requests involved:

> *"It's become clear in the tariff formula negotiations that they're expecting too much. You've got to bear in mind that we're still one company. Their requirements for information are substantial, and are diverting key resources. We're changing the business. The last thing we need is to have to spend a lot of time satisfying information requests for the regulator. They lack commercial experience. Theoretical economists - they say, use marginal costing. What is the marginal cost of an extra 100,000 customers? Absolutely irrelevant to BG now - we're about to lose hundreds of thousands of customers."*

The foregoing illustrates the huge burden of providing regulatory information, and that the power of the regulator in demanding such information appears to be limitless. As a technology of social and organisational control, accounting has been employed as a powerful weapon. The information demands and interviewee comments discussed above relate to a time period prior to BG's decision to demerge the business, which was announced in early February 1996. A driving factor in this decision was the effect of take-or-pay liabilities on BG's profitability. These liabilities arose as a result of the development of the 'gas bubble', a term given to the over-supply of gas in the market, which in turn led to the creation of a spot market for gas, where previously there had been only a contract market. BG found itself in 1995 facing an over-supply position of almost 25% of its gas demand. There were several reasons for this, all deriving from the fact that BG no longer managed the market for supply and demand. It had lost market share in the industrial and commercial sectors much more quickly than anticipated when many of its long-term purchase contracts, partly as a result of regulatory changes. Most BG purchase contracts were for 20-25 years, so clearly many were signed when market conditions facing the company were very different. These contracts involved BG in take-or-pay commitments, i.e. they had to pay for gas regardless of whether they could use it. One serious unintended consequence of the introduction of competition was a financial crisis which stemmed from this development and which contributed to the creation by British Gas of two separate companies, one containing the trading activities and onerous gas contract liabilities, and the other containing the transportation and exploration activities. The demerger, the largest corporate restructuring ever undertaken in the UK, resulted in the formation of two new companies, British Gas and Centrica, in 1997. This went much further than the requirements of the 1995 Gas Act, which required only the creation of a new trading subsidiary. This situation provides one instance of the operation of the dialectic of control, as BG used the resources available to it to influence events. It seems highly likely that recognition of the power of accounting to provide transparency of operations also contributed to the decision to undertake such a radical restructuring, since there was little advantage to be gained by remaining integrated, and indeed the cost in time and money of having to provide so much information was detracting from management's ability to run the business. In terms of the dialectic of control, it appears that the only avenue left for management to exert its authority was to take the course of breaking up the business, in order to prepare most effectively for the new competition culture which was now inevitable.

This section has demonstrated how structuration theory can provide insights into the operation of accounting systems and systems of accountability in organisations, by enabling an analysis of these systems to be carried out in terms of individuals drawing upon and reproducing structures of signification, legitimation and domination. In the public service culture the language of accountability was based on a belief in the rights of citizens to universal service, and legitimated the right of government to dominate industry management by holding them accountable for provision of such a service. However, systems of accountability were sometimes used as a means of coercion against management by ministers pursuing political ends, which in turn led the public to hold government accountable for unsatisfactory performance in nationalised industries. Thus problems with systems of accountability contributed to the government's decision to undertake radical organisational change by privatising the gas industry. A new social and political process of accountability was introduced with privatisation, but conflicts were not eliminated. Industry management became accountable to their new owners, the shareholders, legitimating their pursuit of profitability and enhanced shareholder value. This was tempered, however, by a new domination structure in the form of the industry regulator, who had the power to limit the prices charged and profits earned by a privatised monopoly. Ongoing accountability problems included the lack of public accountability of the powerful industry regulator. In the competition culture, a new element was added to the language of accountability when the regulator's powers were widened by the Gas Act of 1995 to pursue the introduction of competition in the domestic market for gas. Evidence was provided of further conflict, as the regulator increasingly used her powers to dominate industry management, until finally further radical change took place when management made the decision to demerge the organisation by the creation of two new companies.

The central importance of accounting information to systems of accountability and organisational change was demonstrated in the consideration of developments as accounting came to embody a new language of accountability in each of the three cultures. Ogden (1995) discusses the shift in the water industry from a ‘vocabulary of costs’ in the nationalised industry to a ‘vocabulary of profits’ after privatisation. Similar developments have been demonstrated here in relation to the gas industry, and extended to encompass the ‘vocabulary of competition’ which was the next step for BG. Accounting’s role in relation to structures of domination and legitimation has also been highlighted in the discussion of its increasing importance to the regulator as she endeavoured to extend competition in the industry. Further evidence of Power and Laughlin’s (1992) assertion of ‘accountingisation’, as the extension of accounting’s importance in the public sector, is provided in this analysis of the extension of the power of accounting in a privatised industry.

CONCLUSION

This paper has provided a structuration analysis of organisational change and management control in the privatised gas industry. It has demonstrated the value of structuration theory as a research methodology, given its emphasis on the interaction of agency and structure in the production and reproduction of social systems. Additionally, it has been shown that by acknowledging the possibility of conflict and contradiction, the theory also provides for the critique and analysis of change. A case study research method was used for its potential to develop ‘…a rich theoretical framework which is capable of explaining the holistic quality of observed social systems and the practices of human actors’ (Ryan, Scapens and Theobald, 1993, p.118). The paper demonstrated how concepts of culture can be understood in terms of structures of signification, legitimation and domination and used as a framework for a study of management control and organisational change. Three distinct cultures were identified as pertaining to the gas industry over the ten year period since privatisation: cultures of public service, commercial business and competition. The case study provided empirical evidence of the existence of the three cultures, as well as providing insights into the processes of change which led to the emergence of each new culture.

Key findings included identification of the many control problems in the nationalised gas industry which provided the impetus for radical organisational change in the form of privatisation of the industry by government. Among these were serious accountability problems which often resulted in nationalised industries being used by successive governments to further their own political objectives. This interference led to government's legitimacy being questioned by a public who held them responsible for poor industry performance. Also in terms of domination structures, industry management were found to wield significant power in defining the industry's objectives and how it would operate. This led to the existence of a strong engineering culture, with priority given to engineering excellence. Accounting systems were shown to be relatively ineffective in enabling adequate accountability in terms of stewardship to be enforced. From a control perspective, the accounting function was subservient to the engineering function, reflecting the fact that decision-making in the organisation revolved around engineering rather than financial considerations. The monopoly position of the organisation, together with the existence of cross-subsidies of services, meant that a detailed understanding of cost behaviour was not considered necessary. Conflict between industry management and government and public criticism of poor performance in terms of high prices and low standards of service were perhaps the result of a conflict between a public service and a public sector ethos, where the former conveys a commitment to running the industry in the public interest and the latter to running the industry in the interest of organisational members. The resulting loss of legitimacy led to the privatisation of the industry in 1986.

The emergence of the commercial business culture was examined, key features of which were new signification structures of profitability and shareholder value. New domination structures included the appointment of the regulator and ownership by shareholders. Its organisational structure as a privatised monopoly enabled British to meet shareholder and City expectations without significant organisational change in the first few years after privatisation. However, a determined regulator persisted in challenging BG management with the aim of introducing competition into the industrial and commercial markets and improving service standards in the domestic market. The constitutive role of accounting in creating organisational reality was demonstrated in relation to BG's practice pre-privatisation of producing published accounts prepared on the basis of current cost accounting principles (CCA), in contrast to most of the rest of U.K. industry, whose accounts were prepared under historic cost accounting principles (HCA). It was widely believed that the practice of CCA reporting by BG was used to legitimate higher prices by reporting lower profits. Although BG was required to produce HCA accounts when it was privatised, it continued to produce CCA accounts as the main accounts, and put HCA information in the less visible Notes to the accounts. Another important finding was that accountability problems were not solved by privatisation - the lack of well-defined mechanisms to ensure public accountability of regulators was discussed.

Developments in the competition culture documented the undoubted capacity of conflict and crisis to effect radical change, as was demonstrated in the eventual demerger of British Gas into two separate organisations. The increasing power of the regulator following the findings of the 1993 MMC inquiry and the passing of the Gas Act 1995 as enabling legislation for the introduction of domestic competition left management in no doubt that regulation was becoming much more intrusive and would require significant organisational change. Prior to the demerger this was evidenced in the 1993 announcement of a major restructuring which included the loss of 25,000 jobs, in preparation for the more competitive environment of the future. Continuing conflict between regulator and management and the 'gas bubble' crisis of 1995 saw management finally reach the decision to demerge, after fighting for ten years to retain an integrated organisational structure. Accounting information was shown to have taken on a crucial role in relation to organisational change, enabling a new language of accountability by giving new visibility to organisational activities, and informing and legitimating the adoption of new values within the organisation. Public accountability of the regulator was shown to continue to be problematic, as criticism was voiced of her freedom to prioritise regulatory duties according to her own preferences. This was seen by some to have resulted in undue concentration on competition issues, to the exclusion of protection of the public interest, since there is no universal agreement that competition best serves the public interest in all circumstances. It would appear that, ten years after privatisation and as the result of much conflict and a number of crises, radical change had indeed taken place in the gas industry and the move to a competition culture was virtually complete.

This paper contributes to the literature on management control and organisational change, with particular emphasis on the role of accounting systems and systems of accountability in processes of change, by providing a contextual analysis of developments in the gas industry during a period of turbulent change. In terms of methodology it demonstrates the suitability of Giddens' (1979, 1984) structuration theory as a basis for a contextual study of management control and organisational change. The paper also has implications for future policy making in relation to appropriate regulatory structures for privatised industries, given that it highlights the far-reaching consequences for the gas industry of some of the limitations of the existing system of regulation. In particular many of the findings regarding ongoing accountability problems have subsequently been substantiated in the consideration in the 1998 Green Paper, 'A Fair Deal for Consumers' of these very issues. In particular it discusses the need to strengthen the existing regulatory framework in order to adequately define the roles of regulator and government, to avoid the danger of an unconstrained and unaccountable regulator. It also asserts that there is a need for more openness and accountability in regulation to ensure that it is transparent, predictable and consistent. It suggests that this could be achieved by placing a statutory duty on regulators to consult on and publish and follow a code of practice on consultation and decision making processes, publish reasons for key decisions and provide in Annual Reports comprehensive coverage of their activities, processes and decisions, in a format useful for Parliament, consumers and other interests. Recognition of the possible dangers of unconstrained competition in provision of essential services is provided in the recommendation that there should be introduced a new primary statutory duty for regulators – to protect consumers – where possible by the promotion of competition. It also suggests that consumer representation should be set on an independent statutory basis, and that regulators should be required to consult consumer bodies in reaching key decisions. These last two recommendations both recognise that competition will not necessarily best serve the interests of customers. It may yet transpire that the changes undergone in the gas industry were to the detriment of organisational effectiveness and consequently also to the detriment of customers, and this paper has demonstrated that many of these changes came about as a result of the limitations of the existing regulatory structures.

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