Public Sector Accounting and Financial Management in the Context of a Developing Country: An Empirical Study of the Volta River Authority in Ghana.

A Thesis Submitted in

Partial Fulfilment of the Requirements for the Degree of

Doctor of Philosophy in Accounting

at the University of Waikato

By

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September 1997

To the Memory of

My Mother (Hawa Seidu)

and

Grandmother (Ayishetu Sayibu)

Abstract

Using the Volta River Authority, a major Ghanaian corporation responsible for the generation and distribution of electricity in Ghana and neighbouring countries, as a case study, this thesis seeks to gain an empirical understanding of the nature and effectiveness of accounting and financial management systems in the context of a public sector organisation in a developing country. The principal rationale of the thesis is an attempt to substantiate and illuminate major issues and concerns about the nature of accounting and financial management systems in public sector organisations of developing countries today. The thesis problematises an overly simple view that developing countries have deficient accounting and financial management systems in their public sector organisations.

The methodological, epistemological, and ontological orientations of the thesis are consistent with what Chua (1986) labels the "interpretive" paradigm. A recognition of multiple realities in the functioning of accounting enables an exploration of the claim that developing countries have deficient public sector accounting and financial management systems in a three-dimensional fashion. Firstly, the perceptions of organisational actors are drawn upon to aid evaluation of the basic deficiency claim. The research at this level emphasizes the technical-rational view of accounting as a tool for control over organisational financial resources. Thick descriptions of the systems for managing financial resources (including planning, budgeting, pricing, extent of computerisation, financial reporting and audit practices) of the VRA are gathered from organisational actors together with perceptions of the accounting and financial management systems by external constituencies such as the World Bank and the Authority's multinational audit firms as a basis for evaluating the deficiency claim in the context of the VRA. Secondly, the thesis draws upon social theory (the view of organisations as negotiated orders) to further interpret the deficiency claim by bringing into the analysis the socio-historical circumstances of the organisation and how they help to provide insights into how the systems for financial resource management arise at the VRA. At this level of analysis, the thesis provides an interpretive construction of the technical procedures for financial resource management against the backdrop of the institutional setting within which the Authority conducts its operations. To this end, the influence of external constituencies such as the World Bank and the Volta Aluminium Company (VRA's major customer) on the Authority's accounting and financial management systems are explored. Thirdly, the thesis evaluates the effectiveness of the Authority's accounting and financial management systems with reference to the extent to which they assist in the accomplishment of the principal rationale for establishing the organisation (i.e. socio-economic development of Ghana). At the third level of analysis, the Brundtland Commission's notion of sustainable development is drawn upon as an alternative to the dominant economistic notion of development to provide a benchmark for the analysis. Employing the Commission's perspective, the thesis attempts to understand the extent to which VRA's systems of financial resource management reflect the notion of people-centredness and environmental awareness (i.e. the two major strands of the Commission's notion of sustainable development).

Multiple methods, including interviews, observation, document analysis and survey are employed to collect empirical evidence for this study. The major conclusions of the study are that from a technical-rational perspective, the claim that developing countries generally have deficient public sector accounting and financial management systems could not be established in the context of the VRA. This conclusion derived from the overwhelming positive perception of the Authority's

financial resource management systems by organisational actors, international funding agencies such as the World Bank, and the Authority's multinational accounting/audit firms. Indeed, the claims about the lack of published annual accounts, inadequate information for managerial decision making, poor budgetary practices, and lack of independent auditors in developing country public sector contexts could not be supported in the case of the VRA. However, by going behind the technical procedures (façade) to uncover the forces which explain how the systems arise, the thesis argued that the deficiency claim might be supported in another sense; a sense which appreciates and problematises the socio-historical and institutional setting which are strongly responsible not only for the nature of the Authority's current systems but how they have changed over time. In particular, the thesis argues that the systems of financial resource management are constructed partly to legitimise outcomes of prior negotiations between the Authority and its external constituencies. The constraints presented by these prior agreements and contracts render some of the Authority's systems of financial resource management inconsistent with explanations grounded in conventional accounting and financial management logic. The thesis also finds, however, that some of the inadequacies observed with VRA's systems of financial resource management reflected general limitations of conventional accounting with its over-emphasis on the entity concept rather than a peculiar organisational or even developing country problem.

By employing an interpretive methodological approach to gain an understanding of the nature and effectiveness of accounting in a third world public sector organisational context, this thesis illuminates hitherto relatively unappreciated issues, including furthering an appreciation of accounting as a socio-political artefact in this context, and thus contributes to the critical and interpretive accounting literature.

Acknowledgement

The completion of this project involved a number of people who have contributed in various ways. I wish to express my sincere appreciation and thanks to these people for their contributions without which this project would never have come to a completion.

I cannot adequately express my gratitude to my panel of supervisors, Professor Jim Haslam, Associate Professor Sonja Gallhofer, and Associate Professor Stewart Lawrence. Their guidance, encouragement and prompt critical comments greatly improved the thesis. I consider myself extremely fortunate to have had this team involved in the project with such a great deal of interest. I remain deeply indebted to them. I also wish to thank Professor Tony Lowe who played a very important role in shaping the thesis during the initial stages. Tony and Stewart did not only encourage me to undertake doctoral studies, but they also recommended me for the New Zealand Overseas Development Assistance (NZODA) Postgraduate Scholarship to enable me complete this task.

I would also like to express my sincere thanks to the New Zealand Ministry of Foreign Affairs and Trade for providing funding for this research. In particular, I wish to thank Rosanne Bjerring, the NZODA Scholarship Administrator at the University of Waikato, for her continuous support. Other valuable support was provided by friends and colleagues in academia, particularly Mr Jeremy Callaghan, the Assistant Vice-Chancellor at the University of Waikato who despite his busy schedules helped to proofread the final report. I also wish to express my gratitude to Dr Michael Goldsmith of the Political Science and Public Policy Department at Waikato for his guidance on the methodological and theoretical discussions in the thesis. I would like to thank Kwame Mfodwo for his encouragement throughout the journey and for providing me with relevant documentation on VRA and Valco. The documents Kwame provided me helped to shape my understanding of VRA before delving into further empirical detail. The thesis also benefited from discussions with visiting academics to the University of Waikato, including Professor Greg Whittred, and Associate Professor James Guthrie. I wish to acknowledge the support provided by academic and administrative staff of the School of Management Studies. I also wish to thank the research assistants who administered the survey of the Ghanaian public on my behalf.

I would like to thank the Chief Executive, Mr Kalitsi and staff of VRA for their invaluable support in providing data for this research. Special mention must be made of Mr Quansah, Mr Okpoti, Mr Dokyi, Mr Kofi Andoh, Mr Ofedie, Mr Yankah, Mr Addo, Mr. Abavana, Mr Yeboah, Mr Ellis, and Mr Arhin for their support. I am also grateful to Professor Baeta, Professor Ghartey, Dr. Al Hassan and Dr. Chambas for their assistance during my efforts to gain access to VRA for this research. My sincere thanks also go to the Managing Director, Mr Hagan and staff of ECG for providing interviews and documents for this project.

Finally, I wish to thank my wife, Fouzia Abu-Shiraz, for her dedication and continuous support and particularly for putting her studies at the University of Waikato 'on hold' to assume full responsibility for the household chores during the last stages of this thesis.

Thank you all.

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List of Abbreviations in the Thesis

ABC	Activity Based Costing
ALCAN	Aluminium Company of Canada Ltd.
ALCOA	Aluminium Company of America
APB	Accounting Principles Board
APCP	Accounting Personnel Computerisation Project
BAC	British Aluminium Company
BPA	Bonneville Power Administration
C	Cedi - Ghanaian Local Currency
C.E.B.	Communaute Electrique du Benin
COCOBOD	Ghana Cocoa Board
COS	Corporate Statement of Objectives
CPP	Convention People's Party
DOS	Departmental Statement of Objectives
E.C.G.	Electricity Corporation of Ghana
ECOWAS	Economic Community of West African States
FASB	Financial Accounting Standards Board
GPSC	Ghana Public Services Commission
IBRD	International Bank for Reconstruction and Development
IMF	International Monetary Fund
LME	London Metal Exchange
MAC	Maiden Accounting Conference - VRA
MBA	Master of Business Administration
MFP	Ministry of Fuel and Power - Ghana
MPA	Master of Public Administration
N.E.D.	Northern Electricity Department
N.Z.	New Zealand
NEP	National Electrification Plan - Ghana
OECD	Organisation for economic Co-operation and Development
P.N.D.C.	Provisional National Defence Council
PRC	People's Republic of China
U.K.	United Kingdom
U.N.	United Nations
U.S/U.S.A	United States of America
UGCC	United Gold Coast Convention
VALCO	Volta Aluminium Company
VRA	Volta River Authority
WAFAL	West African Aluminium Ltd.

Chapter One

Overview of the Thesis

1.1.0 Introduction

This thesis provides an interpretive analysis of the nature and effectiveness of accounting and financial management systems within a "third world" public sector organisational context. The focus of the thesis is to explore the view which seeks to associate deficiency with the public sector accounting and financial management practices of developing countries[1]. An important commonality among the studies suggesting this basic deficiency view is their representation of accounting as a technical, neutral craft at the service of organisations and society (this argument is further emphasized in Chapter Two). However, with the proliferation of alternative representations of accounting in recent times (see Chua, 1986; Hopper and Powell, 1985; Laughlin, 1987, 1995), it has become increasingly necessary to empirically investigate the basic deficiency view in an approach which appreciates the multi-paradigm understanding of accounting. Since paradigms provide different (or even exclusive) ways of seeing and understanding social interactions, there is a strong possibility for different conclusions to emerge from a paradigm shift in public sector accounting and financial management research on developing countries.

Using the Volta River Authority as a case study, the basis of the view about the widespread deficiency in public sector accounting and financial management systems in developing countries is explored in a three dimensional fashion (i.e. from a technical-rational perspective, socio-historical perspective, and socioeconomic development perspective, see Chapter Three). In pursuing this principal objective, the thesis shows how an appreciation of the social and historical analysis of accounting can provide insightful understandings of the taken-for-granted processes which underscore the received view of public sector accounting and financial management systems in developing countries. By drawing upon social theory, the thesis demonstrates how an accounting system which is perceived as effective in the technical-rational sense (not only by

[1] Chapter Two elaborates further on this issue through an extensive review of the literature on public sector accounting and financial management in developing countries.

those whose daily routines are patterned by these systems but also by powerful external institutions, such as the World Bank and internationally reputed audit/accounting firms), is severely limited by the historical circumstances of the organisation.

The thesis argues that while the accounting systems of the Volta River Authority do not provide any evidence to support the deficiency claim in a technical sense, they nonetheless suggest serious limitations of conventional accounting (which has its origin in the advanced Western capitalist nations), especially the overemphasis on the entity concept. In particular, the lack of an appreciation of "people-centredness" in the Volta River Authority's drive to promote socioeconomic development through its electricity pricing structure is an evidence of a major limitation not only of the Authority's accounting and financial management systems but also of conventional accounting in general.

1.2.0 Nature and Background of the Research

Defining governance as the exercise of political and professional (including accounting) power to manage a nation's affairs, Landell-Mills and Serageldin (1991) suggest that it is a critical determinant of the economic performance of a country with a dominant public sector. Like most former colonies (see Buchanagandi, 1991, Killick, 1978), Ghana's public sector witnessed dramatic expansion soon after political independence from Great Britain in 1957. A substantive view in the literature is that this was because the immediate post independence ideological and economic policies of Ghana discouraged private Ghanaian capitalism (see Killick, 1978). Today, the public sector has a dominant role in Ghana's economy controlling a significant proportion of the country's financial and human resources (Toye, 1991). However, the perceived unsatisfactory performance of the Ghanaian public sector has been a major concern especially since the overthrow, in 1966, of the first democratically elected government of Ghana (the Nkrumah government, see Agama, 1985; Ayee, 1986; Boachie-Dankwa, 1984; Killick, 1978; Woode, 1986). The concern about unsatisfactory performance has potentially very serious implications for a country that is known to have invested so much in economic development projects (see Killick, 1978 for a detailed discussion of Ghana's economic development investments in the post-colonial period).

One of the most important and often controversial issues in the management of the public sector is the adequacy and/or appropriateness of the accounting and financial management systems present in the sector. Previous studies (including Blondal, 1988; Craner and Jones, 1990; Dean, 1988b; 1989a; Enthoven, 1988; Ghartey, 1985) point to deficiency in financial management systems as an important weakness in the management of the public sector of most countries (see Ghartey, 1985 for the situation in Ghana)[2]. While monitoring the performance of public sector entities is a problem in both the developed and developing world (Dean, 1989a), "deficiency" in public sector accounting and financial management is increasingly being seen as becoming a characteristic of socioeconomic underdevelopment (see Blondal, 1988; Craner and Jones, 1990; Dean, 1988b; Enthoven, 1988; Ghartey, 1985). For example, Dean (1988b, p. 156) writes that "poor countries generally have poor governmental financial management systems". Similarly Blondal (1988, p. 15) maintains that:

> in many developing countries inadequate reporting for financial and economic management at the central level has contributed to unrealistic and inconsistent decision making, ineffective monitoring of fiscal developments, and ensuing imbalances in the public finance.

Although most of these prior studies do not provide an empirical understanding of how public sector accounting and financial management systems function within a specific third world organisational context (as shown in the next chapter), they call for radical and urgent reforms to the accounting and financial management systems if 'improvement' in performance of the public sector is desired. For instance, Enthoven (1988, p. 212) writes that:

> the great significance of the public sector in many [developing] economies and the deficiencies that exist in public sector financial management, generally require better methodologies, practice and training in this vital sector of countries.

What constitutes a "better methodology or practice" is quite debatable especially given the diverse perspectives of understanding and investigating accounting phenomena. On the one hand, there are "the ethnocentric conceptualists who advocate that [public sector] accounting systems operating in the developed world could be transplanted to the developing countries

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[2] See also Chapter Two.

(Wallace, 1990, p. 3; Craner and Jones, 1990[3]; see also Lowe, 1967; Siedler, 1969[4]). There are also those who counter global prescriptions of [public sector] accounting systems (see Briston, 1978;1979; Dean, 1989a; see also Mirghani, 1982; Perera, 1989). The latter group maintain that there is little possibility of finding a single monolithic system of public sector accounting and financial management that would be "effective" in all countries, given the significant historical, political and cultural differences among countries. They therefore propose that:

> a carefully designed strategy for the development of accounting as an effective tool for the economic development process must be adopted by each country *in view of its specific environment* (emphasis added, Mirghani, 1982, p. 68).

This thesis maintains that public sector accounting and financial management systems should reflect the specific requirements of each developing country (or even public sector organisation) and thus a universalistic criteria of assessing the effectiveness of these systems will largely be problematic (*subter*).

1.3.0 The Research Objective

The background presented above leaves a lot of researchable issues each of which could be pursued as a doctoral project. Most obvious of these are: What do mainstream writers mean by "deficient" public sector accounting and financial management systems? Do developing countries really have deficient public sector financial management systems? If yes, what should be the focus for improvement? Dean (1988b) observes that an empirical investigation of these issues would constitute a significant contribution to the literature on public sector accounting in developing countries.

Rather than pursuing these issues, which could result in another set of debatable prescriptions, this study seeks to gain an understanding of the nature and effectiveness of accounting and financial management systems of a public sector organisation in a developing country context, the Volta River Authority (a major power company responsible for the generation and

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[3] In a public sector context.

[4] For more general arguments for the transfer of accounting technology from the West to developing countries.

distribution of electricity in Ghana and neighbouring countries). The principal objective of the study is to evaluate the systems of managing financial resources at the VRA against the claim that public sector organisations in developing countries generally have deficient accounting systems. To carry out this evaluation, the study not only seeks to understand the technical procedures which the VRA currently has in place for financial control purposes, but also how these systems arise and the extent to which they reflect the principal rationale for establishing the organisation. While the effectiveness of the technical procedures is determined by reference to the perspectives of organisational actors, the latter two objectives are accomplished through an appreciation of the historical context of the organisation and the institutional setting within which the organisation conducts its operations.

1.3.1 Research Questions

The objectives stated above can be restated in the form of a research question as follows:
To what extent are the accounting and financial management systems of the Volta River Authority deficient?

To address this principal research question, the following sub-questions are formulated.

1. How are financial resources managed at the Volta River Authority?
2. How do the financial management and accounting procedures at VRA arise?
3. How are the accounting and financial management systems of VRA maintained, and changed over time?
4. Can these procedures be described as deficient? If so, in what ways?

1.4.0 Rationality, Ethnocentrism and the Meaning of Deficient Accounting and Financial Management Systems

An important question that most readers might pose after reading the first few pages of this thesis is: "what is a deficient accounting system?". Socrates sums up in the Platonic dialogue - Phaedrus, the crucial importance of seeking definition and clarity in the following illuminating passage:

> if anyone wants to deliberate successfully about anything, there is one thing he (sic) must do at the outset: he must know what he is deliberating about; otherwise he is bound to go astray. Now most people fail to realise that they don't know what this or that really is: consequently, when they start discussing something they dispense with an agreed definition, assuming that they know the thing; later on they naturally find to their cost, that they agree neither with each other nor with themselves (cited in Black, 1986, p. 25).

An interpretation of Socrates' philosophical position in the context of this thesis is that an appropriate starting point for an examination of the view that developing countries have "deficient" public sector accounting and financial management systems is to understand what constitutes a "deficient" accounting system. While it could be argued that a strong possibility exists for an understanding of the term to evolve in the course of the research or even at the end, in this thesis an initial attempt was made to gain an appreciation of what deficiency meant in the current literature. Although the term was used on numerous occasions by accounting researchers, the meaning was never clarified. Perhaps the everyday dictionary meaning(s) were implied (i.e. inadequate, wanting in material defects, incomplete, weak, etc) as these were used interchangeably with "deficiency".

This thesis argues that the term "deficiency" cannot be properly understood without reference to a particular context. Indeed, whether an accounting system is "deficient" or not is contingent upon a number of issues, including the lens through which the system is viewed. For instance, it is possible to describe an accounting system as deficient on the grounds that it does not meet a certain criterion of rationality. But as Hines (1988a) observes, there are as many conceptualisations of rationality as there are 'paradigms' in accounting research. And there is always a strong tendency for a researcher not only to generalise his/her view of rationality to other contexts but to constantly seek to perpetuate that view by representing it as superior to other modes of rationality (see also Jones, 1992). Such a researcher would perceive competing or alternative notions of rationality as unacceptable and might even feel insecure about the existence of these other ways of making sense of social phenomena (see Kuhn, 1970). Thus, in the context of public sector accounting and financial management systems, there is a tendency for some researchers to argue that accounting and financial management systems in developing countries are "deficient" on the grounds that they do not meet a particular criterion of rationality which may be irrelevant to the context of developing countries because of the wide array of differences in socioeconomic, historical, political, and cultural environments among nations.

This thesis argues that rationality and for that matter deficiency, should be understood in context-specific terms as opposed to a universalistic fashion. By this, is meant that any study which seeks to draw conclusions on the deficiency or otherwise of accounting and financial management systems should take cognisance of the differences in historical, cultural, and socioeconomic backgrounds of the organisations within which these systems operate. As Trigg (1985, p. 23) observes, "we cannot effectively make sense of what anyone does except in the context of a wider whole". In addition, the notion of deficiency can be contingent upon the researcher's own understanding of what accounting is and how it (should) function(s) in organisations and society. This thesis takes the position that since there cannot be a single monolithic system of accounting and financial management for all public sector organisations, there can also not be a single mode of determining the effectiveness of public sector accounting and financial management systems. The thesis therefore calls for a 'broader' understanding of these systems; an understanding which is not limited to only the technical rationality of the systems but also includes an appreciation of the socio-historical context within which the systems operate. It is possible, as this thesis argues, for an accounting system to be judged technically effective but when the underlying processes which explain how these systems arise are taken into consideration, the same system might be judged deficient. Thus to gain insights into whether there is deficiency or otherwise, this thesis appreciates the technical rationality of the accounting and financial management systems at VRA, the socio-historical context of the organisation, and the extent to which the systems reflect the stated principal rationale for establishing the organisation (i.e. promotion of the socioeconomic development of Ghana).

1.5.0 The Contributions of the Study

They [developing countries] have a future, but few have a past at least in an accounting context (Wallace, 1990, p. 3).

The above quotation is taken from one of the most recent reviews of the literature on accounting in developing countries published in an inaugural issue of the journal *Research in Third World Accounting*. The quotation provides an excellent summary of the views of most researchers whose interest hinges on accounting in developing countries. They do not only argue, that research on third world accounting is dominated by purely descriptive studies, but they also appear to be consistent in their call for empirical studies on these economically less-privileged countries of the world (see Craner and Jones, 1993; Jaggi, 1973; Samuels and Oliga, 1982; Samuels and Piper, 1985; Wallace, 1990). By empirically exploring the nature of accounting and financial management systems in a particular third world organisational context, this study provides an important contribution to the current literature on public sector accounting in developing countries. Perhaps the lack of empirical studies on public sector accounting was not a unique problem to developing countries in the period before the early 1980s (see Perrin, 1981). Perrin (1981) observes that public sector accounting as a research area in the broader discipline of accounting, remained unattractive to practitioners and academics alike until the early 1980s. However, with the inauguration of such journals as *Financial Accountability and Management* (in 1985), *Research in Governmental Accounting* (in 1985) and to some extent the *Accounting, Auditing and Accountability Journal* (in 1988), a proliferation of empirical research on public sector accounting and financial management can now be observed. But the majority of these relatively recent studies are carried out in the advanced Western capitalist nations. This leaves a very visible gap on empirical studies concerned with developing countries.

In addition, the entire discipline of accounting has been criticised for how little we know about the actual functioning of accounting in its organisational context (see Hopwood, 1979; Miller, 1994). This has inspired accounting researchers to investigate accounting in action by employing 'interpretive' and 'critical' perspectives grounded in the works of social theorists including Habermas, Foucault, and Giddens (see Chew, 1993; Hooper, 1992; Laughlin, 1984; Lawrence, 1990). However, such studies, though very fascinating in their findings, usually have the advanced Western capitalist nations as their empirical foci. Thus the extent to which developing countries 'benefit' from the conclusions of such studies is quite limited. By employing an interpretive methodological approach in a third world organisational context, this study contributes to our understanding of accounting in a developing country context by uncovering hitherto unappreciated or taken-for-granted accounting issues. Such a contribution might extend not only to the particular organisation studied but also to developing countries as a generic group, despite the differences that might exist among public sector organisations in these countries.

Since the literature review in the next chapter indicates that the relatively few empirical studies which have been carried out in developing countries have approached their objectives with the celebrated managerial theory view of public sector organisations as 'rational', co-operative and harmonious entities, this study provides an "alternative" dimension (see Broadbent and Guthrie, 1992) to the current literature by taking an 'interpretive' view of public sector organisations as negotiated orders. Such a view understands accounting and financial management systems design, maintenance and change as a process interwoven in the routine organisational negotiation processes. While there are studies which view the craft of accounting as a political process (see Cooper and Sherer, 1984; Tinker, 1980), empirical illustrations of accounting as a political process subject to negotiations are still scanty. This is a major limitation of the new wave of accounting literature which draws heavily on social theories. This thesis, therefore, contributes not only to the accounting literature on developing countries but also to the 'broader' critical/interpretive accounting literature.

1.5.1 Why a Study of Ghana is Important

There are a number of justifiable reasons for studying a Ghanaian public sector organisation in this thesis. Firstly, the number of countries which possess the characteristics conventionally associated with developing countries (*subter*) is so large that no single doctoral project can be 'broad' enough to provide an empirical coverage of all these countries. As Wallace (1990, p. 10) writes:

> global synthesis of accounting systems .... cannot do justice to the peculiar characteristics of the countries covered. Only ... specific country studies can provide an in-depth understanding of the accounting situation.

The above quotation indicates that it is most unlikely that a 'manageable' doctoral project will be able to provide sufficient (or in-depth) empirical coverage of all the developing countries. A choice is therefore necessary.

Secondly, Ghana has been very influential on the African continent not only in terms of the struggle for political independence from colonial masters, but also in terms of the spread of economic development policies initiated by the country. As Toye (1991, p. 151) puts it:

> it may seem harsh to say so, but just as Ghana pioneered political independence from colonial masters in Africa, so also has she pioneered a set of self destructive[5] policies which many *more recently decolonised African countries have followed* (emphasis added).

Given that the majority of citizenry of African countries live in abject poverty "defined as those struggling to survive on less than US$370 a year" (Smith, 1992, p. 2), it could be argued that a significant number of developing countries come under the sphere of Ghanaian influence and thus partly explains the choice of Ghana.

Thirdly, currently the Ghanaian government in collaboration with the Bretton Woods institutions is making extensive efforts to reform the public sector[6]. The policy which is funded by loans from the Bretton Woods institutions proclaims the need for an introduction of efficiency, effectiveness and accountability in the public sector as its principal objective. However, it is doubtful whether any remarkable success is achievable through these reforms if Ghana's (as in other developing countries) public sector financial management and accounting systems live up to their descriptions as "deficient" (Dean, 1988b; 1989a), "inadequate" (Blondal, 1988), and "old-fashioned" (Craner and Jones, 1990). As Dean (1988b, p. 145) writes:

> pumping development finance into countries with weak accounting and widespread lack of skills through agencies with defective systems has predictable consequences: Basic assurances concerning proper use of funds is missing.

This makes the present study not only important because of its focus but also timely because of the current public sector reform in Ghana. Finally, and perhaps more obviously, Ghana is chosen for the purpose of this study because it is the homeland of the researcher who has substantial insights into its socioeconomic history, development, and institutions. The next section provides an overview of the Volta River Authority which represents the empirical focus of the research.

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[5] This study does not intend to open up a debate on what "self destructive" means. The citation emphasizes the influence that Ghana has over other developing countries on the African continent.

[6] Ghana has been identified by the IMF as a model for its Structural Adjustment Lending Scheme which the Fund started in the mid 1980s.

1.6.0 Volta River Authority: The Empirical Research Focus[7]

The Volta River Authority is a public corporation established by the Government of Ghana in 1961 to generate electricity from the largest human-made lake in the world[8]. Under the Volta River Development Act, the establishing document for the VRA, the organisation is required to supply electricity in bulk to other Ghanaian corporations (including the Electricity Corporation of Ghana, ECG, which until recently was solely responsible for power distribution in Ghana) and power utilities in neighbouring countries. Although VRA is mandated to "operate on sound commercial lines", it does not have final authority in determining domestic tariff levels[9]. It is [expected to be] financially self-sustaining and is empowered to borrow money from the open market for its development programmes (interview no. 36). A summary of VRA's functions and its perceived contribution to the Ghanaian and neighbouring economies, as presented by organisational actors, is provided in the next sub-section.

1.6.1 Summary of the Functions of VRA

The functions of VRA as spelt out in the Act of incorporation (as amended over time), may be grouped as follows:

1. Power Activities

- Generate electric power to meet the industrial, commercial and domestic needs by, first, developing the hydro-electric potential of the Volta River and, thereafter, by any other means deemed appropriate.
- Construct and operate a transmission system for the supply of power in bulk to customers/consumers.
- Distribute power in the Northern Sector of Ghana.
- Export power to neighbouring countries.

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[7] A historical analysis of the VRA is provided in Chapter Six when the thesis draws upon the negotiated order perspective as a social theory to further explore the deficiency or otherwise of VRA's systems of accounting and financial management.

[8] See Appendix 1.1 for the Management Structure of the Volta River Authority.

[9] A detailed discussion of the Authority's tariff structure and the underlying socio-political processes are provided in Chapters Four and Seven.

2. Non-Power Activities

- Provides facilities and assistance for the development of the Volta Lake for fishing and commercial transportation.
- Develop the Volta Basin by controlling and safe guarding the health of its inhabitants.
- Provide public health services to Akosombo and communities in the Volta Basin.
- Exercise local government powers at Akosombo.
- Ensure environmental protection in the Lakeside area.

The next section presents a summary of the perceptions of organisational actors about the contributions of VRA to the economies of Ghana and its neighbours.

1.6.2 Perceived Contributions of VRA to the Ghanaian and Neighbouring Economies

Over the years VRA has contributed towards the economic growth of Ghana and neighbouring countries by supplying electric power which is considered one of the prime movers of economic development and prosperity (interview no. 02; see also Saunders et al, 1978). It is also currently playing a significant role in the Government's National Electrification Plan (NEP) which aims at supplying power to all parts of Ghana by the year 2020[10]. Since 1987, the National grid has been extended to most parts of the Northern Sector of Ghana, namely, the Brong Ahafo, Northern, Upper East, and Upper West regions. Various commentators have expressed views which portray the Authority as a successful public corporation in Ghana (see Graham, 1982; Killick, 1978; Toye, 1991). For example, in his critical review of Ghana's development policies, Killick (1978, p. 249) writes:

> what makes the VRA of particular interest here, and what sets it apart from most other state enterprises, is that, in terms of its main duties, it was a success story. It is true that its attempts to resettle the former residents of inundated areas ran into serious difficulties, ... but in its main functions of building and operating the hydro-electric project the record is clearly favourable.

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[10] See Chapter Eight for a detailed discussion of the national/rural electrification in the context of VRA's financial management.

Indeed, VRA exceeded its planned performance level for the first five years of operations (Killick, 1978). In pursuit of its role in Ghana's socioeconomic development, VRA has also established a number of subsidiaries including Kpong Farms Limited, the Akosombo Hotel Limited, and Volta Lake Transport Company Limited. Through Kpong Farms Limited VRA has established a pilot and demonstration scheme in modern agricultural systems especially in irrigation, mechanisation, crop-soil responses, engineering support and farm management. It currently undertakes farming in rice, livestock, and sells processed meat. VRA also provides hotelier services through its subsidiary, Akosombo Hotel Limited. The hotel provides boarding and lodging, conference and tourism facilities and services. Through the Volta Lake Transport Company, VRA also provides multi-modal commercial transportation services for passengers and bulk cargo on the Lake Volta. The diverse services which the VRA provides makes it one of the most important public corporations in Ghana (see Toye, 1991).

In addition to the services provided by the subsidiaries, their role as employment providers cannot be overemphasised in a country with a very high unemployment rate (estimated at 25 % in 1993/94)[11]. The contribution of VRA is further evidenced by the diverse customer groups it serves:

Local Customers

A Electricity Corporation of Ghana (E.C.G.)

B Major Mining Companies such as:

I) Ashanti Goldfields Corporation

ii) Consolidated Diamonds

iii) Billiton Bogosu Gold

iv) Southern Cross Limited

v) State Gold Mining Corporation

C Northern Electricity Department (N.E.D.)

D Manufacturing Industries (Akosombo Textiles Ltd; Aluworks Ltd)

E Akosombo Township/Akuse Estates

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[11] See Third World Guide (93/94, p. 297).

Foreign Exchange Customers

- VALCO Ltd
- Togo and Benin (C.E.B.)
- La Cote d'Ivoire (C.I.E.)

As the above indicates, the contribution of VRA is not limited to the Ghanaian economy alone; in fact Appendix 1.3 indicates that VRA contributes significantly to the power requirements of Ghana's neighbours (i.e. Togo, Benin and La Cote d'Ivoire). The appendix summarises the annual energy consumption per class of customer. It illustrates the contribution of VRA to the various customer groups over a ten-year period between 1985 and 1994. With the exception of 1985 (when the VRA was still recovering from the effects of the 1983/84 drought), Valco stands out as the major consumer of power generated by the VRA, consuming over half of the total power generated. It is important to observe that the total power supplied to the two domestic power distributors (i.e. N.E.D. and ECG) forms just over 50% of the power supplied to Valco (see Appendix 1.3).

In addition to the generation and supply of hydro-electricity, the Authority, in co-operation with other public agencies or at the request of government, undertakes other projects relating to the environmental effects of the formation of the Volta Lake, research and development work pertaining to fisheries, hydro-biology of the lake, public health, shore-line agriculture and various aspects of resettlement. The responsibility for the maintenance of the resettlement townships built for persons displaced by the formation of the Volta Lake has, at the request of the government, been transferred to appropriate departments and agencies since 1971. Nevertheless, residual problems affecting the settlers are referred to the VRA for advice and any necessary action (VRA Annual Report, 1993, p. 5)[12]. The VRA thus continues to maintain interest in matters concerning these communities. The health and well-being of the inhabitants of Akosombo and the Lakeside area have been made obligations of the VRA under the Act establishing the organisation.

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[12] Chapter Eight evaluates the extent to which these environmental obligations are reflected in the Authority's accounting and financial management systems.

The VRA exercises a similar responsibility in respect of VRA township at Akuse and the reservoir formed in connection with the Kpong Hydroelectric Project. The VRA runs a well-equipped hospital at Akosombo, and through a Health and Safety Department handles matters concerned with sanitation and public health. The researcher visited the Hospital for observation purposes. It was found that most of the facilities in the Akosombo Hospital are not only up-to-date but seem to be too advanced for such a small community[13]. In 1990, the VRA commissioned a Medical Boat to provide basic medical services and public health education for the inhabitants of the Lakeside area. These measures taken by the VRA are intended to ensure that the Project causes as little adverse effect on the surrounding population as possible (VRA Annual Report, 1993, p. 5). The VRA also built and runs private Junior and Senior Secondary schools (for children of employees and local residents), which remains among the best performing schools in the examinations conducted by the West African Examinations Council.

As part of its role in the government's National Electrification Plan, the VRA helped in 1993, to connect four District capitals in Northern Ghana namely Walewale, Savelugu, Tumu, and Sandema, to the national grid. The VRA also signed a contract (in March 1996) with KEC International of India and ABB Sae Sadelmi of Italy for the extension of grid power to 13 district capitals in the Northern Electricity Department (N.E.D.) area of operation.

Although VRA's contribution to the economy is perceived (by organisational actors) as substantial, a World Bank report in 1990 indicated that only about 15% of the population of Ghana has access to electricity (World Bank, 1990, p. 4). This is partly because the bulk of the output of VRA is consumed by Valco (see the breakdown of Annual Maximum Power Demand by the various customers presented in Appendix 1.4). As the appendix indicates, domestic consumption is growing at a significant rate (i.e. an annual rate of about 5%). This trend still continues as reflected in the Chairman's remarks:

> The continued growth in the Ghanaian economy characterised by expansion of production in the industrial and commercial sector, resulted in high 8.7% growth in the domestic demand for electricity (VRA Annual Report, 1994, p. 11).

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[13] A community of about 15,000 people.

Indeed, domestic consumption increased from 366GWh (8% of total output) in 1979 to 535GWh (12% of total output) in 1988. It is also interesting to find that the supply to Valco (with the exception of the drought period) is averaging around 60% of the total output. The statistics on consumption per customer group is important for understanding the pricing systems at the VRA as discussed in Chapter Seven. The rising trends in domestic consumption was cited as one of the major difficulties currently facing the VRA and the energy sector in general. Interviews with top management of VRA revealed that this forms a major concern and constitutes an important element in their strategic planning.

1.7.0 The Structure of the Study

The thesis is presented in nine chapters as follows:

Chapter One: An Overview of the Thesis

Chapter One introduces the study by providing the nature and background of the research. It also elaborates upon the research objectives and contribution of the thesis to the discipline of accounting, and accounting in Ghana, and developing countries as a generic group. Chapter One also introduces the Volta River Authority, the principal empirical research focus of the thesis.

Chapter Two: Literature Review

Chapter Two provides a critical review of the literature on public sector accounting and financial management in developing countries. It documents the 'conventional view' as reflected in the literature on public sector accounting in developing countries and identifies the gaps in that literature in terms of themes, methodology and methods. The chapter maintains that although a significant amount of work has been done on developing countries, these studies are non-empirical and their conclusions are heavily influenced by perspectives from development economics, including perspectives which have been significantly questioned or discredited in the latter discipline. In particular Rostow's (1960) Stages Model of development, Arthur Lewis' (1954) Two-Sector model, the false paradigm model, and the neoclassical dependency theory are shown to have a significant impact on the current literature on public sector accounting and financial management in developing countries. The chapter concludes that there is an urgent need for empirical studies which are grounded in the 'interpretive' and 'critical' methodological approaches since such perspectives have the potential to provide alternative understandings to the dominant technical rational perspective.

Chapter Three: Methodology and Methods

Chapter Three provides the methodological and methodical orientation of the research. Following Chua, (1986) Hopper and Powell (1985) and Laughlin (1995) the chapter argues that methodological choices are inevitable in any research endeavour and that it can be helpful for researchers to clarify, up-front, their methodological orientation. Such a clarification is required, because a way of seeing is also a way of not seeing (Poggi, 1965). Against this background, Chapter Three discusses the epistemological, ontological and methodological assumptions underlying the study. These assumptions are consistent with those that have been identified by Chua (1986) as interpretive methodological assumptions. The chapter further elaborates upon the exploratory case study method which forms the principal tool for evidence collection for this project. The chapter also discusses the specific evidence collection procedures which were employed to gain an empirical understanding of the VRA's financial resource management systems. These include interviews, document analysis, survey, and non-participant observation. Chapter Three also discusses the depth of investigation required to enable conclusions on the deficiency or otherwise of VRA's accounting and financial management systems. In particular, the three 'levels of investigation' - the technical-rational perspective, socio-historical perspective, and socio-economic development perspective - are elaborated.

Chapter Four: Accounting Systems at the VRA: The Technical Façade.

Chapter Four provides the first level of empirical evidence analysis through a discussion of the technical procedures for accounting and financial management of the VRA from the point of view of organisational actors. These insights gained from organisational actors are used to question the basis of the claim that developing countries have "deficient" accounting and financial management systems in their public sector organisations. The chapter maintains that from a technical perspective the Authority's systems of financial resource management could not be described as "deficient" because the systems are perceived by organisational actors as enabling control over organisational financial resources thus making such claims about the lack of financial control procedures, lack of timely and adequate information for managerial decision making and lack of auditor independence sufficiently unsupported. There is also evidence from actors who are external to the VRA, including the World Bank and the Ghana Public Services Commission, regarding the strength of the Authority's accounting and financial management systems. While the deficiency claim is unsupported in the technical rational sense, Chapter Four points out the need to problematise the simplistic technical view of accounting and financial management systems. Thus the next 'level' of empirical analysis goes behind the technical façade, by drawing upon social theory, to uncover how these technical procedures arise and are reproduced within VRA.

Chapter Five: Problematising the Technical Façade: Negotiated Order Perspective as a Theoretical Lens

Chapter Five explicates the social theoretical perspective which guides the interpretation of research evidence at the second level of empirical evidence analysis. It discusses the negotiated order perspective (espoused by Strauss and his colleagues, 1963, 1964) and other theories of negotiation (Gulliver, 1979; Zartman, 1978; Young, 1975) which are used to gain a further understanding (i.e. beyond the technical façade provided by organisational actors) of the accounting and financial management systems at the empirical site. The chapter also develops a core argument in the study that public sector organisations are negotiated orders not only internally but also externally in terms of the relation between the organisations and constituencies in their wider environment. Accounting systems design, maintenance and change in such organisations, the chapter argues, are perceived as 'political' processes interwoven in the routine negotiations in these organisations. While this view runs the danger of opposing the norm (i.e. the dominant technical-rational view of accounting) it nonetheless has a huge potential of uncovering hitherto taken-for-granted issues in our efforts to understand how accounting and financial management systems are designed, maintained and changed over time in complex social settings.

Chapter Six: Historical Analysis of the Volta River Authority

To enable an application of the negotiated order perspective as a theoretical lens for making sense of empirical evidence at the second level of analysis, an historical analysis of VRA is carried out in this chapter. Chapter Six documents the significant events in the history of the Authority thereby enabling a deeper understanding of the accounting and financial management systems and how these have changed over time. In particular, the chapter elaborates upon the negotiations which preceded the establishment of the organisation in the early 1960s and points out the importance of the Master Agreement which was signed between the Ghana Government (acting on behalf of the Authority) and other Western capitalist organisations, including Volta Aluminium Company (Valco) and the World Bank.

Chapter Seven: Behind the Technical Façade: An Interpretive Construction

Drawing upon the negotiated order perspective, this chapter reinterprets the notion of deficiency from a socio-historical perspective. The chapter argues that although it might be extremely difficult to justify the claim of deficiency in the context of the VRA by reference to the technical understanding of the procedures for accounting and financial management, an historical analysis of the organisation's accounting and financial management systems (especially in terms of product pricing) reveals how the impact of political and other forces can problematise the simple view in these technical terms. The chapter shows how negotiations constitute the Authority's accounting and financial management system design and change process because of the constraints posed by the 1962 Agreements and also demonstrates how military juntas have significantly impacted on the negotiation process over time. An evaluation of the outcomes of these negotiations and the implications for accounting and financial management at the VRA results in a conclusion that the deficiency claim might be supported in another sense.

Chapter Eight: Understanding VRA's Accounting Systems in the Context of Socioeconomic Development

Chapter Eight provides a further reinterpretation of the notion of deficiency with particular reference to the notion of socioeconomic development (the main rationale for establishing the organisation). The chapter presents various post war interpretations of the concept of development and argues for a conception of development which goes beyond the dominant economistic view. Drawing upon the Brundtland Commission's notion of sustainable development (i.e. which emphasizes people centredness and environmental friendliness), the chapter argues that VRA's accounting and financial management systems do not properly reflect the purposes for which the organisation was established and therefore that the deficiency claim can be supported in that regard. However, by taking into consideration the current efforts which the Authority has made to integrate the environmental effects of its operations into mainstream accounting and decision making systems, the chapter argues that the deficiency claim cannot be entirely supported.

Chapter Nine: Conclusion

This chapter wraps up the thesis through a summary of the major discussions and conclusions.

1.8.0 Some Definitions

In this section some definitions of terms which are necessary to understand the study are presented. These are terms which might be understood in different contexts from the usage in this study.

1. Accounting and Financial Management

Although traditionally a distinction is often drawn between "accounting" and "financial management", in analysing the financial resource allocation and tracking process in the public sector, the two terms are so linked that they are often used interchangeably. This view is captured by Henley et al (1986, p. 5) when they write that "accounting in the public sector is about financial management". In this thesis the term "accounting" and "financial management" are used jointly to mean those mechanisms, technical or otherwise, which have been designed to ensure the 'proper' allocation of financial resources, the tracking of these resources, and the accountability procedures for reporting to those who are legally entitled to such reports. This includes not only the day to day procedures in the management process (such as budgeting, overhead allocation, cash management, and product pricing), but also the long term development plans which extend beyond one financial or calendar year.

2. Developing Countries

Strictly speaking, all countries can be described as developing if development implies (as the economists argue) economic growth (increase or decrease in specified indicators such as real GNP per capita) plus structural and social changes. Despite the logic in this view, there exist a number of schemes which seek to classify countries in terms of the level of socioeconomic development. In this thesis the term developing countries refers to those countries whose historical, socioeconomic living conditions, and political backgrounds compare "less favourably" to those of the United States, Canada, Australia, and Western Europe. The majority of the countries referred to in this thesis "are found in Africa, Asia, Latin America, the Middle East, and Oceania" (see Wallace, 1990, p. 3). Other terms used to describe these countries include emerging economies, and third world countries.

1.9.0 Chapter Summary and Conclusions

In this introductory chapter, the nature and rationale of the thesis are discussed. The chapter elaborates upon the research objectives and questions to be pursued. The project seeks to understand, from the perspective of organisational actors in a third world public sector organisation, how financial resources are managed and how the systems for financial control came to be what they are. The perspective of organisational actors is accorded primacy because prior studies on public sector organisational management in developing countries have seldom explicitly focused on the role of organisational actors, thereby ignoring the huge potential organisational actors have in terms of their understanding of organisational processes. Indeed, there are no processes independent of organisational actors; organisational processes derive from the understanding and consequent actions of organisational actors. The insights gained from organisational actors are then used to evaluate the claim that developing countries generally have "deficient" public sector accounting and financial management systems. Chapter One also introduced the Volta River Authority, the empirical focus of the thesis highlighting its contributions to Ghana and her neighbours.

Chapter Two

Public Sector Accounting and Financial Management in Developing Countries: A Critical Assessment of the Literature

The most empathetic observer can speak objectively about underdevelopment only after undergoing, personally or vicariously, the "shock of underdevelopment" (Goulet, 1971, p. 23).

2.1.0 Introduction

Drawing upon the experiences or forces which were instrumental for the rapid socio-economic development of the West, most contemporary developing countries regard the public sector as a major vehicle (the sole vehicle in some cases) in their quest for advancement in socio-economic development (Buchanagandi, 1991). Indeed, the experiences of the Indian sub-continent, Africa, China, and Latin America, show the dominance of and important role which is accorded to the public sector in the drive for socio-economic development in today's developing countries (see Bhatia and Batra, 1995; Killick, 1981). While the role of the public sector in most developing countries is perceived as significant, the literature has been concerned to elaborate a strong critique of management processes in these organisations. Central among the most controversial issues in public sector management in developing countries is the nature and effectiveness of the accounting and financial management systems present in the sector (Chapter One, *supra*). While this controversy suggests important accounting research issues, there has been little attempt to pull the literature in this area together. Insights into public sector accounting in developing countries are currently scanty and widely dispersed in the international accounting, mainstream accounting, governmental accounting and public administration or institutional development literatures.

In light of the above, the objective of Chapter Two is threefold. Firstly, the chapter aims to provide a descriptive account of the literature on public sector accounting and financial management in developing countries. The rationale here is to chronicle the views of various researchers in the field and to point out the omissions in terms of themes, methodologies and methods. Secondly, the concern is to indicate how some important conclusions in the literature are deeply-rooted in the thinking of development economics including theories which have been significantly questioned and largely discredited. In particular the chapter draws upon Belkaoui (1994) to argue that a number of economic models including Rostow's *stages model*; Harrod-Domar's *growth model*, Arthur Lewis' *two sector theoretical model*; the *neoclassical dependence model*; and the *false paradigm model*, have significantly influenced research findings in the area of public sector accounting in developing countries. Thirdly, and perhaps most importantly, the chapter aims to further clarify the rationale for the thesis by indicating its location in the public sector accounting and financial management literature on developing countries.

The rest of the chapter is organised as follows. After a background discussion which further elaborates a rationale for this review the chapter summarises views expressed by various researchers regarding the nature of public sector accounting and financial management in developing economies. It categorises the literature into four sub-groups including works dealing with internal managerial decision making; external reporting and accountability; accounting for specific socio-economic development projects; and grand theorising in the field of public sector accounting in developing countries. The chapter then elaborates a summary critique, including critically linking views expressed in the literature to the conventional thinking of development economics. Before concluding, the chapter indicates the location of the thesis in the context of the literature reviewed.

2.1.1 Background.

Despite what has been portrayed to be the long history of the concept and importance of the public sector, research in public sector accounting and financial management has attracted relatively little research interest among academics and practitioners until fairly recently (Normanton, 1966; Perrin, 1981; Pallot, 1992). Since the early nineteen eighties, there has been a growth in interest among researchers in this area (see Guthrie and Parker, 1988; Broadbent and Guthrie, 1992; Humphrey, Miller and Scapens, 1993)[1]. This interest has resulted in a significant growth of the public sector accounting and financial management literature over the last decade and half. Despite this expansion in the field, public sector accounting and financial management

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[1] Broadbent and Guthrie (1992) point out that the global trend - as evidenced by the emergence of "Thatcherism" (UK), "Reagonomics" (US), and "Rogernomics" (NZ) - towards public sector reform provides a partial explanation for this upsurge of interest in this field of study.

is still accorded a nascent status by some writers (see Lapsley, 1988; Pallot, 1992).

Previous efforts to review the literature on public sector accounting and financial management have been made by Chan and Picur (1986) and Lapsley (1988). Chan and Picur (1986) classified the literature into: governmental accounting theory; empirical research; and policy development; and they concluded that "while some significant advances [in public sector accounting and financial management] have been made, much remains to be done" (p. 213). Lapsley (1988) in the inaugural issue of *Accounting, Auditing and Accountability Journal* categorised the public sector accounting literature in a "more traditional" fashion into: finance-related topics; financial accounting and accountability; audit; internal accounting and management information systems. Consistent with Chan and Picur (1986) he observed that "most significant efforts of accounting researchers have been directed towards financial accounting and accountability. While there has been some research into management accounting in public sector institutions, the financial [aspects] and audit [practice] of such organisations have been neglected" (p. 30).

It is the view of this thesis that further review of the public sector accounting literature is now timely. It is some time since Chan and Picur (1986) and Lapsley (1988) carried out their reviews. Public sector financial management and its context have undergone a number of significant transformations since then. For example, New Zealand only started to implement its significant reforms from the late 1980s by which stage, furthermore, reforms in Australia and Britain were still at an embryonic stage. More crucial here is that analysis of the two previous reviews shows that they have placed much greater emphasis on the literature on public sector accounting and financial management systems in 'Western' capitalist nations to the virtual exclusion of the literature on developing economies. Both reviews were in a significant sense ethnocentric given their focus upon largely the U.K. and U.S. literature. This chapter takes the view that public sector accounting and financial management systems of developing countries constitutes a very worthy focus for research. The chapter responds to the need for a review of the literature on public sector accounting and financial management focusing upon the neglected area of developing economies[2]. This helps to further clarify the rationale of this thesis.

[2] There are a number of reviews of the accounting literature on developing countries (see, for example Jaggi, 1973; Samuels and Piper, 1985; Wallace, 1990). Yet there is no single review which seeks to pull together the accounting literature specifically in the public sector area.

2.2.0 A Framework For The Review

For the purposes of this review, the literature on public sector accounting and financial management in developing economies is classified into four categories:

The first category deals with works which seek to examine the internal reporting and financial decision making within public sector entities. Specifically the category includes works on issues such as cost effectiveness, efficiency, budgets and budgetary control, investment decisions, and monitoring and evaluation of performance. The second category is concerned with works dealing with external reporting and accountability issues. This category reviews works which seek to address such issues as the nature of the forces driving public sector financial reporting in developing countries. This includes focus upon financial reporting standards and legal and/or statutory requirements of public sector entities and the nature of accountability arrangements and relationships between the central government, citizenry, donor countries, and the international financial institutions. Articles examining external audits and performance of the Auditor-General'sdepartments (including their degree of independence) are also covered here. The third category includes works on the role of accounting and financial management in specific socio-economic development projects such as sanitation, rural development, and education. Category four deals with works constituting theory development in research into public sector accounting and financial management in developing economies. Clearly, some works overlap in terms of the above categorisation and such works are dealt with under more than one category to reflect their correspondence with a number of identifiable themes.

The literature reviewed in this chapter consists primarily of works published in English-Language journals including: *Research in Third World Accounting; Financial Management and Accountability Journal; Accounting, Auditing and Accountability Journal; Critical Perspectives on Accounting; Accounting, Organizations and Society; Advances in International Accounting; The Journal of Management Studies; Governmental Accounting Research; International Journal of Accounting Education and Research; Finance and Development; Development and Change;* and *Journal of Developing Economies.* Where applicable, the review goes back to trace the work in these journals over the last twenty-five years. Important contributions outside this period, which have had significant impact on the literature within the period covered in this review, are also included. In addition to journal articles, books, monographs and doctoral dissertations (both published and unpublished) are covered. This broad coverage goes beyond Chan and Picur (1986) and Lapsley (1988).

2.2.1 Category One: Internal Reporting And Financial Decision Making.

The period prior to the early 1970s produced very few studies in the area of internal reporting and financial decision-making. An important empirical study on public sector accounting for internal organisational decision making in developing countries was carried out by Caiden and Wildavsky in 1974 (Enthoven, 1977). In that study Caiden and Wildavsky found that central government budgets and economic planning in "poor" countries were rudimentary and difficult to implement because of the high degree of environmental uncertainties. They argued that this problem "cascades" to the various government departments, ministries, and government owned enterprises in these countries. Thus accounting systems were portrayed as needing to be strengthened in this context. In a similar fashion, Enthoven (1977) observed that cost and managerial accounting systems, which have a vital role in successful organisational decision making processes in Western countries, were still at an embryonic stage in developing countries. He portrayed the situation to be worse in the public sector than in the private enterprise sector of these countries. Enthoven (1977) further maintained that in most countries in Africa and Asia cost accounting systems were either rudimentary or non-existent in public sector organisations.

In these early attempts to understand the nature of accounting in public sector organisations in developing countries, the authors approached their works by implicitly drawing comparisons between the developing and advanced countries and suggesting that the systems in the former were inadequate. The advanced countries, however, should not necessarily be taken as the standard for comparison. Differences in historical, political, cultural and socio-economic environments need to be considered. For example, the earlier studies could have gone further by exploring contextually whether the accounting and financial management systems serve the purpose(s) for which they were set up. Comparing the accounting systems of developing countries to their Western counterparts and referring to the former as rudimentary does little to aid the development process of these less privileged countries of the world (cf. Briston, 1979).

Gujarathi and Dean (1993) put forward their view that the difficulty in recruiting and retaining qualified accountants in the public sector of developing countries was one of the most serious problems facing their public sector management. Researching eight developing countries - Bangladesh, Gambia, Ghana, Malawi, Nepal, Nigeria, Papua New Guinea, and Tanzania - the authors found that with the exception of Nepal, senior public sector officials in these countries readily accepted and expressed views which supported their view. For example, concerns in Ghana were as follows:

> ... there is no doubt whatsoever that there is difficulty not only in recruiting but also in retaining qualified accountants/auditors in the public sector ... Until late 1986, there were only two fully-qualified accountants/auditors employed in the Civil Service ... Response to advertised posts for accountants/auditors by the public service has often been discouraging (Gujarathi and Dean, 1993, p. 190).

For the case of Papua New Guinea, the authors similarly reported that almost all accounting and financial management positions in the public sector were filled by non-graduate accountants. Gujarathi and Dean more generally reported that most recurrent among the reasons advanced for the acute shortage of qualified government accountants/auditors were: overall shortage of trained accountants; inadequacy of training personnel and facilities; salary differential between private and public sectors; poor job environment and lack of opportunities for growth. For Gujarathi and Dean an important consequence of this lack of qualified accounting personnel is that "questionable, uneconomic, or improper management decisions have been made without proper accounting data and appropriate interpretation thereof" (p. 194).

Gujarathi and Dean (1993) gives insights into the perceptions of public sector accounting held within developing countries. There are some deficiencies, however, with respect to the central theme of their work. For example, hiring qualified accountants may be an important or even necessary condition for securing improvement in public sector accounting and financial management systems but is in itself not sufficient. Empirical research focused upon Bangladesh (Parry and Groves, 1990) and Tanzania (Abayo and Roberts, 1993) suggests that the training and use of qualified accountants do not necessarily bring about an improvement in the quality and standards of public sector accounting and financial management in developing countries. A partial explanation is that accountancy practices mobilised in developing countries for public sector organisations are often prescribed by Western "experts" who are not only external to the organisations but also appear to pay little attention to the context of the developing country. Important questions that remain unaddressed in their work include whether the local accountants/financial managers perceive the Western systems as fully relevant to the needs of the organisations concerned, whether they can be considered adequate and relevant in terms of criteria derived from the local context and whether public sector organisational actors in developing countries are able to appropriately influence the accounting and financial management systems with which they work.

In an earlier article, Dean (1989a) had argued against the crude transfer of accounting technology from the West to developing countries. He pointed out that such techniques, including Performance Budgeting, Programme Budgeting, and Zero-Based Budgeting were "anachronisms" in developing countries. Whilst this view to some extent helps to balance the later argument of Gujarathi and Dean (1993), an even more balanced and coherent stance would recognise that such techniques need to be mobilised in terms of a contextual frame of reference but also may not be entirely irrelevant to developing countries. Briston (1978; 1990), Enthoven (1979), and Samuels and Oliga (1982) have also tended in some ways to overemphasize the differences between developing and developed countries - a needed counter to much of the important mainstream literature's ethnocentrism - whilst overlooking degrees of commonality between the needs of these contexts. Interestingly, Dean (1989b) argued that problems which were encountered by the adoption of Zero-Based Budgeting in developing countries were also experienced in the United States - where the technique was largely developed - "with its highly trained personnel and advanced information systems" (p. 83). Thus Dean maintained that the abandonment of the technique shortly after its adoption by developing countries could not be attributed to a lack of competent personnel in these countries but reflected to a large extent the inherent weaknesses of the technique. Similar sentiments are expressed by Goode (1984) when he writes that "applied on a modest scale, ... Zero-Based Budgeting might have been more constructive" not only in developing countries but globally (p. 37). Goode (1984) further argued that Zero-Based Budgeting proposals, as with Program Budgeting proposals "were overambitious; their advocates promised too much and were naïve about the nature of budgeting"

(p. 38)[3]. A further key question that is not addressed however by Dean or Goode is the purpose and role that is served by these techniques in developing countries. The same accounting/budgeting technique can have several roles and exploring this empirically could further problematise Dean (1989a). A more substantive empirical dimension to the argumentation would further the research.

The views expressed by Dean (1989a) above, follow on from his 1986 study which sought to report on the experience of four developing countries - India, Malaysia, Philippines, and Sri Lanka - which had adopted Performance Budgeting. In that study Dean sought to assess the extent to which Performance Budgeting satisfied the information needs of its intended users (including the executive, legislature and managers). He concluded that not only was Performance Budgeting predicated on unrealistic or false assumptions about organisational management processes but also that the claims about its perceived advantages (particularly in the environment of developing countries) were far-fetched. Maintaining that the technique of Performance Budgeting was "illusive" in a developing country context, Dean (1986) wrote:

> ... performance budgeting did not live up to expectations. Its usefulness to the legislature is in doubt, its use by management has only been realised on a small scale, its impact on budget formulation is small; the linkage with planning is tenuous (p. 21).

Dean (1989b) further maintained that most budget innovations including Zero-Based Budgeting adopted by some developing countries "encountered severe set-backs" - for example in countries such as the Philippines (p. 83). There is little doubt that Dean's critique of Performance Budgeting and Zero-Based Budgeting made a worthwhile contribution to the literature on public sector accounting and financial management in developing countries. It was also timely because its publication coincided with the period when most developing countries were considering Performance Budgeting as the most reliable tool for financial management in the public sector. Another area that Dean leaves unaddressed in this context however, is the need to provide an alternative model for budgeting in developing countries.

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[3] He further contended that while "continuous budgeting", an alternative put forward by Caiden and Wildavsky (1974) gave appreciation to the difficulties of comprehensive budgeting, the technique "seems to retreat too far from the ideal of rational allocation of scarce resources" (p. 38).

Alam and Lawrence (1994) explored institutional aspects of the budgetary process in a state owned jute mill company in Bangladesh. They argued that traditional Western budgetary processes were incongruent with those of the Bangladeshi mill. The authors also found that environmental and political uncertainties (see also Caiden and Wildavsky, 1974) were among the factors shaping the nature of the organisation's budgeting processes. Alam and Lawrence (1994), concluded that "organisations operating in a bureaucratic and institutional environment may face external demands and constraints on its budgetary processes" (sic, p. 49). Such constraints, in their view, can (and did in the case of the jute mill) limit the organisation's ability to respond to its uncertain context.

While Alam and Lawrence (1994) address a very important research issue, an implicit assumption of their study problematises their argumentation. The paper assumed, right from the outset, a causal relationship between environmental uncertainty (resulting from political processes) and organisational budgetary processes[4]. Such a relationship however, is quite difficult to establish convincingly because of the likely existence of other factors. These include culturally-specific managerial philosophies found in some developing economies (see Buchanagandi, 1991, for the situation in Tanzania). It is possible for the budgetary processes of the company to remain unchanged even if there is a change in some of the uncertainties (e.g. engendered by political processes) identified in the study. Therefore, more holistic contextual research is required to take the study by Alam and Lawrence(1994) further.

Dominguez (1988) discussed the need for reform of financial management in the public sector of developing countries. He argued that although managerial and financial activities of third world public sector organisations have experienced a significant growth since the immediate postwar years, this "has not been accompanied by an adequate organisation to allow public officials to carry out their work and responsibilities in an efficient manner" (p. 275). Dominguez drew attention "to the fact that this reality has created a growing concern among citizens, legislators, and government officials" (p. 275). A major concern of his paper centred around the problems of financial management as part of the internal organisational management process in

[4] Perhaps this stems from their use of institutional theory (e.g. Di Maggio and Powell, 1983) as a theoretical lens for gathering and making sense of empirical evidence.

the public sector of developing countries. A number of conferences (including the November, 1984, Conference on Accounting Education for Development of Asia and the Pacific, held in Manila; and the 1982 International Congress of Accountants, held in Mexico) were cited as illustrations of efforts being made to alleviate the situation. In his view, such conferences do not come anywhere near elaborating the entirety of government sector financial management problems in developing countries (p. 285) and we should not be lured into thinking that developing countries are gradually finding their 'emancipation' through such conferences[5].

Dominguez (1988) offers a "broad plan of action" for public sector financial management reform in developing countries. Since, however, developing countries differ significantly in their historical, political, socio-economic, and cultural environments, researchers need to contribute by exploring the possibilities of financial management reform in individual country contexts. Another question unaddressed concerns what effects policy oriented public sector accounting and financial management conferences have on policy respecting managerial and financial decision making in developing countries, given that a lot of scarce national resources go into the organisation of such conferences.

At this stage it can be pointed out that themes pursued in the area focused upon are narrow viz a viz the literature on accounting more generally. Accounting is a discipline whose potential and actual role in organisational management has been much explored in the literature (Hopwood, 1979; Hines, 1988; Boland, 1989). A variety of perspectives have emerged. For example there is the view of accounting as not only conflict resolving but also conflict enhancing (Argyris, 1952; Cooper, 1983; Gallhofer and Haslam, 1991; Lehman and Tinker, 1987; Tinker, 1985). This contrasts sharply with a more economistic view of accounting information as a vital functional ingredient for 'rational' organisational decision making (see Solomons, 1991)[6]. As well as there having emerged different perspectives upon accounting's role in the above terms

[5] Quite often participants in such conferences as those cited in the main text are urged to believe that the solution to their countries' financial management problems could be found through the recommendations of such conferences. However, there is also the question of the validity of such recommendations and the difficulty of implementation.

[6] See also Ansari and Bell (1991) on the symbolic, behavioural and economic roles of accounting in organisations and society.

there are also different emphases within more technical views of the practice. For example, organisations might be understood to differ in terms of the extent to which accounting information is used as an aid to operational and long-term decision making. This contingency perspective has a wider application. One would expect, for example, organisations which are ostensibly accountable to the citizenry and whose operations are likely to be more directly influenced by formal political processes, to rely more heavily on accounting as a tool for justifying or legitimising organisational decisions. The literature reviewed omits to attend to such dimensions of concerns to understand accounting's social functioning. A universal and narrow economistic perception is dominant. This important omission in the current literature is addressed in the thesis through the adoption of an interpretive methodological orientation grounded in the theory of organisations as negotiated orders (see Chapters Three and Five).

2.2.2 Category Two: External Reporting And Accountability.

A survey of the existing literature on public sector accounting and financial management in developing countries shows that interest in the area of external reporting and financial accountability has been gradually increasing over recent decades (cf. Perrin, 1981). An extensive study conducted by the United Nations (U.N.) in 1955, noted that "in spite of the importance of government accounting ...very little attention has been devoted to this subject in most countries in recent years" (cited in Premchand, 1975, p. 26). The U.N. therefore pointed to the need for researchers to explore issues concerning the role financial reports play in the relationship between the citizens of developing countries and their governments. The U.N. had a conviction that for developing countries to attain any significant socio-economic development, reflected in the living conditions of citizens, some form of accountability relationship must be maintained between the citizens and the government.

Following the call by the U.N., Himsworth (1968) sought to examine the financial administration practices of developing countries. He argued that one of the "major weaknesses in nearly all less developed countries lies in the accounting systems" (p. 37). Looking into the future of governmental accounting in these countries, Himsworth predicted that the situation was likely to continue because a "minimum degree of supervision is lacking, and often disciplinary action cannot be taken against defrauding clerks because they hold their positions, as do the superiors, at the pleasure of the minister in power" (p. 33). In such an environment, Himsworth argued, accounts are either wanting in material defects when published or in the majority of cases not published at all. Himsworth concluded that:

> ... it is my opinion that administration of finance is the main factor which determines the general quality of government administration, for if the financial progress of the country goes wrong or is unknown throughout the year, little else in the field of government activity can be expected to go right (p. 34).

Similar sentiments are held by Enthoven (1969) when he writes that the dominance and importance of the public sector and the ever-increasing range and complexities of public sector activities in developing countries "require comprehensive governmental accountancy for social accounting, economic policies, planning, management controls, and accountability" (p. 29). In a subsequent paper, Enthoven (1973), continued to maintain the same stance on the state of governmental financial reporting in developing economies by arguing that "developing countries are often faced with deficient and disorganised economic and financial data, and may lack at all levels of the economy both effective accounting systems and related administrative skills" (p. 28). Enthoven (1973) concludes with the suggestion that governmental financial reporting and accountability in developing countries might be improved through standardisation of financial reporting. Such a conclusion however, risks overlooking how standardisation of financial reporting might downplay the relevant socio-economic, political, cultural and historical differences in the environments within which public sector organisations operate (see Perera, 1989, for a detailed argument against global standardisation of accounting practices in the private enterprise sector).

Moechtar (1975) explores the financial management and accounting systems of the Indonesian central government and contends that there are some weaknesses and imperfections in the present accounting and financial management practices. He further maintained that the weaknesses require proper action. Moechtar compiled a list of what he perceived as the most important weaknesses; including the use of single-entry for recording financial transactions and the lack of a complete set of accounts in each operating department. Moechtar used the USA and USSR as reference points for Indonesia. This can be considered problematic. Developed countries might not provide the appropriate benchmark for evaluating governmental accounting in developing countries because their paths to and strategies for socio-economic development may differ. Similarly, the argument, from a Eurocentric stance, that some imperfections are present in Indonesian governmental financial management practices suggests that "perfect" financial management practices could be found in the West. This is clearly a highly problematic view given criticism of Western accounting in the literature. Researchers familiar with accounts of recent developments in the financial management practices of the United States, for example, will argue that their system is still far from perfection (see Enthoven, 1988). Perhaps there is a need, in this respect, to be more critically self-reflective and explicit in mobilising the criteria to evaluate the financial management and accounting systems of developing countries.

Lu (1988) offered an account of the development of governmental accounting and financial management in China. He pointed out that a system of financial reporting for accountability purposes had operated in China since the era of Confucius, the latter being reported to have said that "where accounting is concerned, moderation is proper" (Lu, 1988, p. 88). Lu maintained that government accounting in the People's Republic of China (PRC) had witnessed a number of significant changes since the introduction of recent reforms to the public sector of PRC. Notwithstanding the changes, Lu still offered the opinion that the government sector financial reports were far from satisfactory. A similar position was taken by Skousen et al. (1990) who argued that auditing and financial reporting in the PRC were lagging behind what was required in the context of a process of "economic reformulation". Skousen et al. (1993) reported on the current practices and procedures of financial accounting in state-owned enterprises in the PRC. They concluded that while admirable efforts had been made by accountants in the PRC to improve their accounting and financial management systems much still needed to be done. It would be of interest to explore the opinions of accountants in the PRC on the problems and future prospects for financial reporting in the dynamic context of the PRC.

Blondal (1988) sought to explore ways in which the flow of relevant management information to policy-makers at the central level in developing countries could be enhanced and improved. He identified three types of financial reporting in government linked to the purpose to be served by the reporting - reporting for internal departmental control; reporting for accountability and parliamentary control; and reporting for central financial and economic management. Focusing his study in the area of central financial and economic management, Blondal argued that "in a large number of developing countries, financial reporting is inadequate for management purposes because... [financial reports]... fail to provide policy-makers with relevant information on a timely and regular basis" (p. 12). He put forward ways of improving the systems in developing countries. Blondal's perspective is however, problematically informed by the conventional theory of development economics (*subter*).

Craner and Jones (1990) argued the case for accrual accounting in the public sector of developing economies. They suggested that the failings of techniques such as Performance Budgeting and Program Budgeting in developing countries (cf. Dean, 1986, *supra*) should not lead researchers and policy-makers to erroneously generalise about accrual accounting. To further their argument, Craner and Jones (1990, p, 112), maintained that "one characteristic of the technique [accrual accounting] which distinguishes it from previous proposed reforms is; it is not obsolete in the West and shows no signs of becoming so in the near future". The arguments raised by Craner and Jones (as they acknowledged) were informed by the United Nation's (1984) publication *Accrual Accounting in Developing Countries.* In that report the *UN Expert Group on Accounting and Auditing* observed that "overall, information on an accruals basis is much more meaningful to policy makers than information organised on other bases" (cited in Craner and Jones, 1990, p. 115). Although accrual accounting might be a viable option for government sectors of developing countries, it is important that we do not overlook the dearth of 'qualified' accountants necessary for the implementation and maintenance of this system (see Gujarathi and Dean, 1993). More generally, a study seeking to elicit the opinions of public sector accountants in developing countries on the introduction of accrual accounting to these organisations may be very insightful.

For Ghartey (1985) a lack in accountability has emerged as a major factor contributing to political instability, underdevelopment and misery in the African continent. Citing the situations in Ghana, Nigeria, Ethiopia, and others, Ghartey maintained that "deficiencies in the accounting systems in Africa include inadequate, unreliable, untimely information systems, ineffective systems of internal controls and internal checks, a dearth of qualified accountants and dedicated management personnel, poor and inefficient management, and professional incompetence" (p. 154). Ghartey held that these deficiencies in the accounting and financial management systems "provide inadequate safeguards against fraud, corruption, and other malpractices" (p. 154). He concluded that:

> ... the African continent and other parts of the developing world have been searching for strategies for effective accountability and stewardship. The search has been painful and more destructive than constructive, yet a solution must be found (p. 158).

For Ghartey, the solution to this African problem rested with the accountancy profession. This thesis agrees with Ghartey that more research is required to address the accountability issue in developing countries. There is a need to overcome, however, the difficulty of encouraging local critique - given especially a lack of funding - and the tendency to draw from conventional economic thinking (*subter*).

Interestingly, in a subsequent paper, Ghartey (1993) pointed that in the last decade of the twentieth century, education was permeating almost every aspect of accountability and socio-economic development. In his view, development and accountability plans could not be effectively implemented without the appropriate social awareness through relevant education and training, which would render the citizenry appreciative of their civic rights and responsibilities (p. 170). He brought out how interaction between education, accountability and development might be more useful to third world socio-economic development if better understood.

Dean (1988a) conducted a survey of government auditing standards in twenty-five countries (including developed and developing countries). Of particular interest here is his empirically based argument that "whether a country has reasonably complete government audit standards is not simply a reflection of its economic well-being" (p. 234). The problematisation of a relationship between a country's level of socio-economic development and the completeness of its government audit standards is an important evidence which suggests a need to critically explore Dean's own work elsewhere, for example his work on economic growth and governmental financial management (*subter*).

In a study of the role of accounting in public sector decision making in developing countries, Most (1991) put forward the view that the political systems of most of these countries have rendered accountant/auditor independence virtually non-existent in these countries. This, Most

(1991) argued, resulted in accounts which were manipulated in such a way that they did not provide useful information for managerial decision making. Most (1991, p. 246) concluded that:

> Looking at the turmoil which characterises the political situations in many developing countries, and observing that some are run by dictatorships and others struggle to establish democracy, one might be excused for concluding that an independent government accountant or auditor would not have a long life expectancy there, or could at best anticipate a brief career...., a stable government is a prerequisite for the audit function to be effective.

The conclusions reached by Most suggest that an empirical exploration of auditor/accountant independence in developing countries will be very insightful.

2.2.3 Category Three: Accounting and Financial Management for Specific Development Projects.

Many have argued that one of the most important preoccupations of developing economies is how to break out of the trap of socio-economic underdevelopment (see for example, Killick, 1978; Toye, 1991; United Nations, 1988). To tackle this issue, governments of developing countries have often undertaken development projects. Such projects have grown to represent huge investments in terms of the financial and human resources that go into them and their management typically forms a crucial aspect of wider national economic policy. This section covers works which seek to describe, evaluate or prescribe financial management and accounting systems for such projects. The literature in this area is somewhat scanty (see also Dean, 1989a).

It is interesting to reflect that a perusal of the existing literature indicates that concerns about the effectiveness of the financial management and accounting systems of development projects are almost always expressed not by governments of developing countries but by the donor countries and international organisations. Such concerns result from a perceived need to ensure that financial assistance to governments of developing countries is properly utilised and accounted for. For example, the US General Accounting Office (GAO) stressed the need in a 1987 report for improvement in accountability and control over US assistance to Liberia. The GAO determined from a survey of government sector agencies in Liberia that financial management and accounting systems were either weak or non-existing. To help alleviate the problem, the United States Agency for International Development (USAID) provided seventeen operational experts not only to offer advice on the overall management of government enterprises but also to work in key financial positions in partnership with Liberian officials. The effectiveness of this arrangement is difficult to comment on as Liberia became war-torn soon after the USAID's proposed solution. Interestingly, financial mismanagement was offered by the rebels as a major factor engendering the civil war resulting in the assassination of President Samuel Doe.

In another study, the GAO (1984) tried to evaluate the effectiveness of the accounting systems of World Bank financed development projects in selected developing countries. It was reported that "few of the World Bank's projects could meet audit requirements because of basic and significant weaknesses in host country accounting systems" (p. 8). Similarly, the U.N. (1988), pointed to the need for improved accounting systems which could provide information not only for the evaluation of development projects but also for accountability to both the citizenry and international funding agencies. The UN (1988) puts it as follows:

> ... development projects are crucial to economic and social progress in developing countries. To achieve their objectives, projects have to be properly managed. For this, the various parties in the management exercise need good financial information and effective system of financial control. Neither is possible without a proper accounting system... (p. 84).

In its *World Development Report*, the World Bank (1988) echoed the above.

> ... reforms in planning and budgeting will be slow and incremental...Along with a continuing need for training to improve Civil Service skills, experience indicates some directions for reform. The starting point is basic accounting. Governments must develop ways to track spending in a timely and accurate way (, p. 130).

In his exploration of this relatively underdeveloped area of research, Dean (1989a) elaborated upon the nature of development projects, focusing on accounting and financial management issues implicit in such projects and concluding that "while there is extensive scope for improvement in project accounting and financial management, the field remains neglected in many countries" (p. 145). Dean went on to suggest that more research is required in this area. It would appear that often systems in operation serve only the international donor agencies without any accountability to the 'public' (see Ghartey, 1985). There is a need for researchers to explore the accountability relationships between project managers and citizens on the one hand, and international agencies on the other. And there is a need to understand the reasons if any for the apparent exclusion of the citizenry of developing countries from accountability.

2.2.4 Category Four: Theory Development in Public Sector Accounting and Financial Management.

Dean (1988b) outlined a three-stage linear model of the evolution of governmental financial management and accounting systems. The model was predicated on the assumption that the nature of a country's financial management systems is a function of its level ofsocio-economic development. Following this principal assumption, Dean argued that countries at a very low level of socioeconomic development tended to have very rudimentary governmental systems which he labelled the "regularity and control" stage. With advancement in socioeconomic development the "financial management" stage is reached and then the "strategic choice" stage. Since the principal assumption of the model is that there is a linear relationship between governmental financial management systems and the level of socio-economic development, it follows as Dean argued that the three stages are mutually exclusive. Dean (1988b) concluded that "any attempt to transplant techniques from advanced stages of evolution to countries in the less-advanced stages must be anachronistic" (p. 37).

Drawing on Dean's (1988b) three-stage model of the evolution of governmental financial management systems, Berry and Holzer (1993) elaborated a "culturally congruent" case study of the development of the accounting function in Madagascar (p. 225). The authors elaborated how Madagascar's governmental accounting function had moved up Dean's evolutionary scale, particularly over the past decade. They, however, cautioned that "this does not, of course, mean that Madagascar's experience could be successfully implemented elsewhere" (p.228).

2.3.0 Critical Analysis of the Literature: Summary Insights

The literature contains a number of diverse themes. Some pertain to issues in specific country contexts although most relate to more global issues . Despite the wide-ranging character of issues covered, a common thread binding much of the literature together is discernible. Much of the literature, as is evident from the citations in the text above, stresses the deficiencies, weakness and inadequacies of the public sector accounting and financial management systems of developing countries. This common thread reflects an overly Eurocentric theoretical perspective of the subject focus. Researchers have tended to seek to analyse and describe the public sector accounting and financial management systems of developing countries from a perspective shaped in and through the experience of the developed world. In this respect it is of concern that the descriptions and comparisons of writers in this area are scarcely empirically developed (cf. Blondal, 1988; Craner and Jones, 1990). It is the view of this thesis that a more balanced approach is required which would steer a path between the tendencies of excessive relativism and crude ethnocentrism.

The above argumentation is enhanced by reflection upon how the literature has been much influenced by conventional theorising from development economics. While the validity of such theorising has been problematised within the latter discipline (see Todaro, 1985), there is a need to question its influence upon the literature of public sector accounting and financial management in developing countries. Dean (1986) is much influenced by a view common to a strand of conventional theory in development economics - the view that countries navigate a linear path through stages of economic growth, with each stage having its own particular characteristics (see Belkaoui, 1994). Such theorising draws principally on the historical experiences of today's advanced countries (Belkaoui, 1994) and is problematic in suggesting that developing countries will necessarily follow the same path and go through the same stages that led to western economic development (Todaro, 1985). A widely cited theory of this type is Rostow's stages model (see Rostow, 1960) while a related and also often cited theory is the Harrod-Domar growth model (Belkaoui, 1994, p. 5). A particular sense in which both models scarcely fit developing country context is that the conditions existing in the latter differ significantly from those of pre-capitalist West (Todaro, 1985). Dean's (1988b) reliance on theories such as that of Rostow (1960)[7] is evident in the following citation:

> ... there is nothing new in attempting to classify developing countries by their stage of evolution....It is central to certain approaches to the development process itself. Rostow (1960) for example identifies five stages of economic growth: the traditional society, the preconditions for take-off into self-sustained growth, the take-off, the drive to maturity and the age of high mass-consumption....Examination of the history of governmental financial management, which is a larger field than governmental budgeting, could reasonably be expected to come up with a similar pattern of evolution (p. 158).

[7] Dean (1988b) acknowledges the strong influence of Schick (1966) who adopted Rostow's(1960) stages model as a framework in furthering his argument that US governmental budgeting evolved through three identifiable stages.

Although Dean seemed to be aware of the danger of providing a standard evolutionary characterisation of governmental financial management systems when he writes that "the number of identifiable patterns of evolution is continuous and one stage merges into another" (p. 159) he displaced this view in further arguing , "however, it is possible to identify three very broad stages in the growth to maturity of a governmental financial management system" (p. 159). This is consistent with an oversight because developing countries are not likely to be clustered in the first stage as Dean maintains. Even those sympathetic to Dean's model (see Berry and Holzer, 1993) found some developing countries having financial management systems which could effectively be located in the higher stages of the model (see Berry and Holzer, 1993, who draw on the stages model but caution that researchers should not seek to generalise the conclusions of their study).

Other strands of the theorising of development economics, such as neo-classical structural change models (e.g. Lewis, 1954, whose two-sector labour theoretical model is identified as a notable example of such a change model by Belkaoui, 1994), which draw upon resource allocation theory and statistical modelling, and the international dependency models, scarcely inform the literature on public sector accounting and financial management in developing countries. Regarding the dependency models, Belkaoui (1994) sub-classifies these into the neo-classical dependency model and the false paradigm model. Both would appear to have the potential to contribute to an overcoming of some of the deficiencies in the existing literature. The false paradigm model contends that unintentionally inappropriate advice from experts from the developed world, whose knowledge of developing country conditions is often inadequate, is one of the most significant problems that need to be addressed in developing countries. Todaro (1985) argued that "these experts resort to sophisticated models, some theoretical and some analytical, which are most of the time inappropriate to resolve the practical problems of underdevelopment" (cited in Belkaoui, 1994, p. 7). While some studies in the literature have made similar claims at least in part (e.g. Dean's 1989, argument against the transfer of governmental accounting technology from the West to Developing countries, see also Dean, 1986) most tend towards an overly Eurocentric stance (e.g. Craner and Jones, 1990, surely fall short of adequately justifying their call for public sector accruals accounting in terms of the particular contexts of developing countries). Of course, the position of this thesis is a more balanced one than that represented by the false paradigm model given the need to recognise commonalities as well as differences between developed and developing countries. The neoclassical dependency model "views the world as being dominated by the rich countries (the core) at the expense of the poor (the periphery)" (Belkaoui, 1994, p. 6). Central to this model is the view that the policies pursued by the rich, core, or developed countries impact strongly upon the peripheral countries because of a dependency situation "and most of the time are responsible for the continuing and worsening poverty of their developing nations" (ibid, p.6). For Wallerstein (1979) the core-peripheral schema was not only central to the relationship between developed and developing countries, but the core countries would always seek to perpetuate this relationship because their continuous functioning depends upon it. Pursuit of such themes in the literature on public sector accounting in developing countries is scanty. It is the view of this thesis that interpretive and empirical theorising could enhance current insights. More generally, the thesis suggests that different themes, methodologies and methods would enhance research in the area reviewed. Research which, for example, addresses dimensions of accounting's functioning beyond the economistic and the universal, which is concerned more towards an alternative, enabling accounting, and which provides more local, contextual and holistic perspectives, should be encouraged. As indicated earlier, this represents one of the major rationales for undertaking this study *(subter)*.

2.4.0 The Location of the Thesis within the Public Sector Accounting Literature

From the above, the review points to an improvement in the interest among researchers in this field. There still remains, however, a lot that needs to be properly addressed. It is worth highlighting some of this here. The major concern of the thesis about the current literature centres around the theoretical perspective that has been taken regarding the nature of public sector organisations. Almost the entire literature seems to unquestionably accept a view in managerial theory that public sector organisations are rational, harmonious and cooperative entities. Yet there are other ways of perceiving or understanding these organisations. Important perspectives currently underutilised in this area include Marxian social conflict perspectives and the view that public sector organisations are politically "negotiated orders" (Strauss, 1978). Research is required to problematise some of the issues and concerns raised in the literature drawing upon these social theoretical perspectives, among others.

Another key point linked to the literature's ethnocentrism is that the current literature appears to take a number of issues for granted and research is required to uncover and address these issues. For example, researchers in the area agree almost unanimously that developing countries have "deficient" public sector financial management and accounting systems, but what constitutes a deficient financial management system is quite debatable (*subter*). Major contributions could be made to the literature through exploring this taken-for-granted question.

Rather than providing non-empirical descriptive accounts of public sector accounting and financial management systems in developing countries or making comparisons between developed and developing countries as a basis for drawing conclusions on the strength of accounting systems in the latter (i.e. the dominant approach in the current literature), this thesis seeks to provide two major contributions to the extant literature. Firstly, the thesis aims to explore contextually, not only their nature and effectiveness but also how the accounting and financial management systems of the Volta River Authority came to be what they are today. The overall aim, in this regard, is to study "accounting in action" with particular reference to a third world public sector organisational context (see Hopwood, 1979). This objective further allows the study to draw conclusions on the deficiency or otherwise of the accounting and financial management systems in the organisation. Secondly, the study also seeks to address important omissions in the current literature through its methodological orientation by going beyond the celebrated managerial theory view of public sector organisations as rational and harmonious entities. Thus by combining the interpretive methodological approach with the negotiated order perspective, this study provides an "alternative" dimension to the literature on public sector accounting in developing countries.

2.5.0 Chapter Summary and Conclusions

This chapter has reviewed the literature on public sector accounting and financial management in developing countries. The chapter points out that two previous efforts have been made to review the literature on public sector accounting and financial management, but both omitted to include developing country issues. Further, reviews of the accounting literature on developing countries have not been specifically focused on public sector organisations. Yet the importance and size of the public sector in developing countries makes this a gap that researchers need to explore.

In carrying out the review, a framework which classifies the literature into four groups was proposed. Specifically the literature was grouped into: those works concerned with internal reporting and financial decision making; those dealing with external reporting and accountability issues; works/studies on accounting and financial management systems of development projects; and those concerned with theory construction in public sector accounting and financial management in developing countries. The review maintained that whilst the areas of both internal and external reporting of public sector organisations as here classified, had been given some substantial attention in the literature, there have been relatively few studies seeking to explicitly and substantively construct theories about government sector accounting and financial management in developing countries. Additionally, in the areas where a lot has been done, empirical studies are still lacking - possibly because most researchers are often non-residents of developing countries and face the linguistic and cultural problems which have become notorious in social science research into developing countries. Most studies in the literature on public sector accounting and financial management in developing countries have been significantly influenced by theories from development economics some of which have been problematised in the latter discipline. In particular, Dean's (1988b)three-stage characterisation of change in governmental financial management was argued to be heavily reliant upon Rostow's (1960) stages model. It is suggested that issues of Eurocentrism and wider question of methodology and theory need to be taken more seriously if research in the area is to advance from this.

Despite the diverse issues covered by researchers included in the review, there seems to be a shared commonality in terms of their conclusions. With some exceptions (including Dean, 1988a), writers in the literature are largely tending to claim that developing countries have "deficient" public sector accounting and financial management systems. This gives rise to a fundamental question that has been (either consciously or unconsciously) ignored or displaced by researchers. This question, which researchers in the field need to carefully address, is "what is a deficient governmental financial management and accounting system?" (see also Dean, 1988b). This question, along with other issues discussed here, should properly engender more empirical and interpretive work within the specific socio-political contexts of particular developing countries.

Having critically reviewed the related literature and indicated the location of this thesis in that literature, the next chapter elaborates the methodology and methods employed in the study.

Chapter Three

Methodology and Methods

3.1.0 Introduction

In the previous chapter a review of the literature on public sector accounting and financial management in developing countries was provided. This chapter seeks to elaborate the position of the thesis on methodology and methods. It outlines the epistemological and ontological assumptions which undergird the thesis. The chapter explicates the "interpretive" methodological perspective which is adopted not withstanding the alleged dominance of the "scientific" approach to research in the extant public sector accounting and financial management literature (see Aitken and Gaffikin, 1987; Chua, 1986; Guthrie and Parker, 1988; see also the conclusions of the preceding chapter).

The chapter is organised into two main parts dealing with methodology and methods respectively. Each part is in turn divided into four sections. Following this introduction is section two which reviews the methodological perspectives in the accounting literature and argues that methodological choices are inevitable in empirical investigations and should therefore be made explicit (and conscious). The third section introduces the interpretive methodological position as the perspective which is adopted in this thesis. The epistemological and ontological assumptions of the interpretive methodology, as applied in this thesis, are elaborated. The fourth section then provides the rationale for adopting an interpretive perspective. Section five introduces the second part which deals with "methods" by raising some concerns about research methods in the accounting literature. The section proposes a case study research design which provides not only the overall structure and orientation of the investigation but also the framework within which evidence is collected and analysed (Bryman, 1992, p. 28). A linkage between case studies and the interpretive methodology is also provided. Section six outlines the strategy that was used to gain access to the research site. The penultimate section discusses the specific evidence collection procedures at the research site and the evidence analysis procedure while the final section provides a summary and conclusions of the chapter.

3.2.0 Towards a Choice of Methodological Perspective

Contemporary accounting researchers have available a variety of methodologies and methods for investigating problems and issues in the discipline. In spite of this variety of methodologies, recent writings in major refereed journals (such as, *Accounting Organisations and Society, Critical Perspectives on Accounting, Accounting, Auditing and Accountability Journal, and Advances in Public Interest Accounting*), point to the need for accounting researchers to employ methodologies which recognise and integrate the overall environment within which accounting operates into the analysis (see Burchell et al, 1980; Burchell et al, 1985; Chua, 1986; Cooper, 1981; Hopwood, 1979; Hopwood and Miller, 1994; Laughlin, 1987, 1995; Scapens, 1984, 1990; Tinker, 1980). This need, it is argued, is urgent to escape the dominance of the "scientific" approach as the main apparatus for research in accounting. This section responds to such calls by reviewing the methodological options available to the contemporary accounting researcher to enable an informed choice of methodological perspective for the entire thesis.

Various classifications of methodological orientation exist in the accounting, sociology, and organisation studies literatures (see Burrell and Morgan, 1979; Chua, 1984; 1986; Donaldson, 1995; Haralambos and Holborn, 1992; Hopper and Powell, 1985; Morgan and Smircich, 1980). However, the classificatory scheme which provides a starting point for the discussion in this section is Burrell and Morgan's (1979) framework[1]. Burrell and Morgan (1979) provide a "two-by-two matrix based on two bipolar continuums" (Laughlin, 1995). The first continuum dichotomizes between "objectivist" and "subjectivist" as alternative approaches to understanding empirical research while the second provides assumptions with respect to the nature of society (i.e. "sociology of regulation" versus "sociology of radical change"). Combining these dichotomies with assumptions about ontology, epistemology, human nature, and methodology, Burrell and Morgan (1979) distinguish between four paradigms namely; functionalism, interpretivism, radical structuralism, and radical humanism.

The framework offered by Burrell and Morgan (1979) has inspired a range of classifications

[1] Most of the other classificatory schemes are either critiques or expansions of Burrell and Morgan's work.

which focus mainly on accounting. These schemes are summarised here[2]. Morgan and Smircich (1980) took the subjective-objective dichotomy further and produced a sociological continuum ranging from "positivist approach" to "phenomenological" perspective. These two perspectives represent opposite ends of the continuum. While the former takes a view of reality as a concrete structure which exists out there irrespective of how human agents conceive of it, the latter sees reality as socially constructed and further holds that human agency cannot be objectified as merely responding to the social world. In the "phenomenological" perspective, human agents are seen as contributing to the creation and recreation of their realities. Morgan and Smircich (1980) therefore argue that these different methodological traditions will require different methods, indicating that qualitative methods will be most appropriate in the "phenomenological" approach because of the need for subjective appreciation of the research domain (Northcott, 1996).

A critical comment on Burrell and Morgan (1979) offered by Hopper and Powell (1985) questions the relevance of the overly simplistic dichotomous view of methodology for accounting research. They maintain that an alternative, and possibly 'superior', view of Burrell and Morgan's social science dimension should be one that sees the nature of social science as continuous. Such a 'superior' view will produce three sub-perspectives namely; "functional, interpretive, and radical". Similar arguments are raised by Chua (1986) who labels the three sub-perspectives "dominant/scientific", "interpretive", and "critical". Theorists in the dominant/scientific perspective, Chua (1984, p. 8) argues:

> see organisational and accounting phenomena as concrete, empirical relations which are regular and causal in nature. There is a reality independent of the individual's cognition; a world of social facts which may be measured and observed by a social scientist qua an "objective" observer.

With an increase in the number of perspectives for understanding and researching accounting phenomena over the last few decades (see Laughlin, 1995), methodological choices have assumed major importance. Laughlin (1995) points out that there is a temptation for empirical

[2] The intention in this section is to provide the number of methodological options which were available to the researcher and therefore the important choice that had to be made (see Laughlin, 1995). The next section will argue the case for the interpretive methodology employed in this thesis.

researchers to avoid choosing a methodological and theoretical perspective before collecting empirical data with the hope that these critical issues will "naturally sort themselves out" during the course of the research. He sees however, the merits of making deliberate choices on methodological and theoretical orientations before undertaking any study. Laughlin (1995, p. 65) puts it incisively:

> The reason quite simply is that all empirical research will be partial, despite any truth claims to the contrary, and thus it would be better to be clear about the biases and exclusions before launching into empirical detail.

Similarly, Hopper and Powell (1985, p. 455) observe that:

> [since] the adoption of a particular approach is inextricably linked with certain values and beliefs...it is the intellectual duty of all academic researchers to acknowledge and substantiate such beliefs and to be aware of the implications they may have for their research.

Laughlin (1995) cautions that not only are choices contestable but so are the criteria which drive them. As Chua (1984, p. 2) quotes Poggi (1965) "a way of seeing is also a way of not seeing". Notwithstanding such a strong view, some guidelines have been offered in the accounting literature for methodological choice in empirical research. Llewellyn (1992) contends that the concern for researchers lies in recognising which perspective is appropriate for any research effort. Drawing on Burrell and Morgan's "simplistic" framework, Laughlin (1995) also maintains that researchers could make methodological choices by clustering Burrell and Morgan's assumptions with respect to ontology, epistemology, human nature, society, and methodology into "three broad bands" which can be conveniently labelled "theory", "methodology", and "change". The choices which need to be made in these "three broad bands" are provided in Table 3.1 on the next page.

Laughlin's guidelines played a significant role in not only the choice of methodological perspective but also the theoretical spectacles for this thesis. The next section demonstrates how this criterion helps in bringing out the tenets of the interpretive methodological perspective as employed in this study.

Table 3.1: Choices for Empirical Investigations

Theory	Methodology	Change
1. Deciding about the nature of the world	1. Taking a position on an amalgam of the nature and role of the observer in the discovery process	1. Whether the investigation is intentionally geared to achieve change in the phenomena being investigated.
2. Deciding on what constitutes knowledge either past or present	2. Deciding on the level of theoretical formality in defining the discovery methods	
3. How the decision on (2) above relates to the current focus of the study		

(Adapted from Laughlin, 1995)

3.3.0 Researching Accounting in its Organisational Context: An Interpretive Perspective

The preceding section has argued that methodological choices are inevitable aspects of the research process and should be made explicit to enable a clear understanding of the researcher's prejudices and assumptions (see Laughlin, 1995). This study employs what is broadly or loosely referred to as the 'interpretive' perspective (see Chua, 1986; Hopper and Powell, 1985)[3]. The perspective does not lend itself to a single definition because it is virtually impossible to reduce it to a set of prescriptions, nor can it be conceived of as a systemic enterprise. It could perhaps, at best , be conceived of as a collection of perspectives (including, symbolic interactionism, phenomenology, and ethnomethodology) which, albeit some significant differences, have a lot of philosophical beliefs in common. As noted above, this study employs Laughlin's (1995)

[3] Llewellyn (1993, p. 233) observes that "there has been a lack of clarity and precision to the term 'interpretive' as a methodology" and suggest that the "confusion" between 'method' and 'methodology' is partly responsible for this lack of clarity. This section therefore attempts to clarify the boundaries of the interpretive perspective as employed in this study.

guideline for methodological choices (Table 3.1 above) to present the tenets of the interpretive perspective of this thesis. The perspective is therefore clarified with regard to its position on "theory", "methodology", and "change".

With regard to "theory", the interpretive perspective draws a distinction between the social world and the natural world (Cuff and Payne, 1979). The perspective contends that social theory should not be judged on the basis of its ability to provide an excellent account of the 'facts' of the world "but rather by virtue of its ability to show social agents how their beliefs and self-understandings partially constitute those facts" (Leonard, 1990, p.4). The interpretive perspective as employed in this study therefore sees the function of social theory as interpreting and rendering intelligible rather than invoking causes. Instead of facts being discovered, the perspective adopted in this thesis posits that our descriptions are governed as much by our interests and purposes as by what is out there (see Trigg, 1985, p. 5). This thesis therefore views human knowledge not just as a passive reflection of reality but as partly constituted by human interests (Chua, 1986). This view is partly captured by Feyerabend (1981, p. xiii) when he writes:

> we decide to regard those things as real which play an important role in the kind of life we prefer.

The interpretive tradition also maintains that reality has no meaning apart from what is believed real by some group. But each group has its concepts, conventions and constructs (Shutz refers to these as "typifications") which have meaning only to the members of the group because they are context-bound (Bloor, 1984). These conventions and constructs help the group members in their conception of reality. As Bloor (1984) puts it; "we know reality with our conventions not in spite of them". The methodological perspective of this thesis therefore regards knowledge as:

> whatever men take to be knowledge. It consist of beliefs which men confidently hold to live by. In particular, the sociologist [social scientist] will be concerned with beliefs which are taken for granted or institutionalised or invested with authority by groups of men (Bloor, 1976, p. 2).

The interpretive perspective maintains that all human action is meaningful but actions can only be understood within the context of historical and social practices (*subter*). Interpretive researchers therefore seek explanations of human actions and intentions and how social order is (re)produced.

In trying to relate the current research problem to the issues raised above, as Laughlin's guideline suggests, an interpretive perspective becomes more illuminating as it makes the research problem quite explicit. It was observed in Chapter One that the current study seeks to understand the "deficiency" or otherwise of accounting and financial management in a developing country through a case study of the VRA. The study, however, takes a view which seeks to understand the perceptions of the actors in the organisation since they have their own understandings of the context which is best known to them. This is where the relationship between the current research issue and the interpretive perspective become so linked.

With regard to "methodology", interpretivists take a view of the researcher as partly constructing the reality which s/he purports to explain (see Hines, 1988). The investigator is not perceived as a neutral external entity but as one who is partly constructing the reality of the phenomena being investigated. Interpretive methodology rejects the use of natural science methodology for study of social science since interpretivists emphasize a difference between the natural world and the social world (*supra*, see Chua, 1986; Llewellyn, 1993). Unlike matter, interpretivists argue that people have consciousness (see Lawrence, 1990). Thus the methodology of this study does not seek causal relationships as they are deemed impossible "without some understanding of the subjective states of individuals concerned" (Haralambos, et at, 1992, p. 708). This is the point of departure or major difference between Weberian interpretivists (who regard the understanding of meaning as necessary to making causal explanations possible, see Haralambos et al, 1992, p. 708) and phenomenologists.

With regard to "change", the interpretive perspective does not seek 'to change society'. Again this represents a significant difference between the perspective and all the various schools of 'critical theory'. Burrell and Morgan (1979) make this distinction clear when they observe that:

> The interpretive paradigm is informed by a *concern to understand the world as it is*, to understand the fundamental nature of the social world at the level of subjective experience. It seeks explanations within the realm of individual consciousness and subjectivity, within the frame of reference of the participants as opposed to the observer of action (emphasis added, p. 28).

The interpretive perspective seeks to understand rather than change the status quo. Investigations under the perspective aim at bringing to the knowledge of social actors how the status quo came to be what it is and do not discount the possibility that through mutual understanding and enlightenment, new possibilities for the future may be envisaged and new realities created. No a priori position is taken with regard to change, while critical theorists seek to find and change extant power structures (see Held, 1980). This study of accounting and financial management systems at the Volta River Authority therefore does not seek any significant 'changes' in the organisation's current systems. It does not also challenge the status quo instead it makes organisational members conscious of how the accounting and financial management systems are designed as reflected in their own perceptions and provides some recommendations which aim to enlighten organisational actors.

Chua (1986) provides a summary of the interpretive perspective which is reproduced in Table 3.2 below:

Table 3.2 Dominant Assumptions of the Interpretive Perspective

A. Beliefs About Knowledge
Scientific explanations of human intention sought. Their accuracy is assessed via the criteria of logical consistency, subjective interpretation, and agreement with actors' commonsense interpretation.
Ethnographic work, case studies, and participant observation encouraged. Actors studied in their everyday world.
B. Beliefs About Physical and Social Reality
Social reality is emergent, subjectively created, and objectified through human interaction.
All actions have meaning and intention that are retrospectively endowed and that are grounded in social and historical practices.
Social order assumed. Conflict mediated through common schemes of social meanings.
C. Relationship Between Theory and Practice
Theory seeks only to explain action and to understand how social order is produced and reproduced.

3.4.0 The Rationale for An Interpretive Perspective

It has been indicated in the preceding section that an interpretive position is taken in the pursuit of the objectives of this study. This section provides justifications for taking an interpretive stance. Perhaps the first and most obvious of the motivations for an interpretive methodology is the need to provide an "alternative" perspective in response to the numerous calls for accounting researchers to go beyond the dominant technical/rational mode of investigation (Burchell et al., 1980; Chua, 1986; Hopwood, 1983; Laughlin, 1987; 1995; Tinker, 1980; Tomkins and Grove, 1983). Since the literature review in Chapter Two indicated that researchers on public sector accounting and financial management in developing countries have taken the celebrated managerial view of public sector organisations as rational and harmonious entities (a view which is consistent with the dominant positivistic perspective), the methodological position of this study provides an "alternative" dimension to the understanding of public sector accounting in developing countries (*supra*). As Broadbent and Guthrie (1992, p. 6) observe:

> the adoption of interpretive methodologies ....can be seen as a swing from the [dominant] positivistic approach of authors such as Watts and Zimmerman (1978).

The significance of such a swing is reflected in Chua's criticism of scientific (positivistic) accounting research for producing theories which are "divorced from the lived experiences of the empirical realm...grounded neither in the life-world of actors nor in the history of social and economic institutions" (Chua, 1986, p. 684).

Another important motivation for adopting an interpretive methodological perspective is the researcher's philosophical conviction that "accounting should be known for what it does in specific contexts rather than what it might be able to do in a generalised and abstract arena" (Broadbent and Guthrie, 1992, p. 6; see also Hopwood, 1985). This is most likely to be achieved through an interpretive methodological perspective because of its emphasis on the context of accounting phenomena. This is implicit in the interpretive ontological assumption that reality is context-bound. By contextualising accounting phenomena, the perspective enables accounting researchers to:

> see accounting as being one of the ways in which a problematic rather than self-evident social reality... (is) constructed rather than merely being a means for its reflection and representation (Hopwood, 1985, p. 372).

To achieve this, the interpretive methodological perspective illuminates the interactive and mutually constitutive relationship between reality and accounting by taking into the analysis the taken-for -granted assumptions of 'positive' accounting research and the commonsense reasoning of everyday life (Hines, 1989, p. 52-53). Consistent with an interpretive methodological perspective therefore, this study contends that the general claim about the "deficiency" of public sector accounting and financial management systems need to be explored within particular historical contexts of public sector organisations in developing countries. Through such analysis, this study reconsiders what is taken for granted to be rational action (Neu, 1992, p. 229) and contends that 'rational action' occurs within a web of social, historical, political, economic, and cultural relations. The study therefore challenges or even discards the notion of universal rationality in favour of a context-specific understanding of rationality (*supra*). Such a view of rationality makes it difficult for ethnocentric judgements to be made about accounting systems operating outside the individual's own preserved notion of rationality (see Hines, 1989).

Since the interpretive methodology recognises that subjectivity cannot be eliminated entirely in our bid to understand social phenomena or human artifacts, it appreciates the 'political' nature of accounting systems (see Goddard and Powell, 1994; Tinker, 1980). By emphasizing the subjective nature of accounting information, it provides a terrain for researchers to uncover the relationship between accounting and its wider environment. This is consistent with Hopwood's (1985, p. 18) recommendation that:

> Much more effort should be devoted to knowing accounting through its effects ...by looking at accounting in action, such a way of appreciation will not blind us to the broader organisational, social, and political consequences of the craft.

Similar sentiments are expressed by Broadbent and Guthrie (1992, p. 25) when they write that:

> if accounting is to be more influential in our lives, it is essential that we understand its effects, and hence the type of research which is needed must be geared to seeking these understandings.

An interpretive methodological perspective enables a "broader" analysis of accounting in its organisational, social, and political contexts. Through such broader analysis, the embeddedness of accounting systems in individual, institutional, and societal webs of relations could be made explicit (see Neu, 1992, p. 225). As Neu further argues, these relationships influence, constrain and in some cases define an organisation's *choice* of accounting system and thus should be considered when attempting to explain or understand accounting systems in action (Neu, 1992, p. 225).

> Social construction of reality approach [interpretive methodology] provides us with a richer understanding of these choices (Neu, 1992, p. 228).

Another important motivation for the adoption of an interpretive perspective is the recognition that conflict is not necessarily dysfunctional. Since the interpretive perspective does not give priority to particular human goals, the concept of dysfunctional does not arise at all (Chua, 1986, p. 618). The perspective therefore questions the traditional view of accounting information as a means of achieving pre-given goals (Chua, 1986, p. 618). Similarly, an interpretive methodology rejects the conventional notion of power as a negative force available only to the privileged few in society (see Giddens, 1984). Instead, interpretivists perceive power as an inevitable force (in social interactions) which is possessed by all social actors, albeit in different amounts.

3.5.0 Concern About Research Method.

Various views have been expressed on choice of methods for empirical accounting research (see Morgan and Smircich, 1980; Scapens, 1990; Llewellyn, 1992). While some argue for a dependency relationship between methodology and methods (see Llewellyn, 1992, p. 8) others argue that research methods "are not positivist or phenomenological-it is how they are used and how the data are interpreted that defines the epistemological assumptions upon which they are based" (Cassell and Symon, 1994, p. 3). This study takes the latter position in presenting the research methods employed for evidence collection at the empirical site. As indicated in the introductory section, a case study research design is used in this study. A description of the case study method is presented in the next sub-section.

3.5.1 Case Study Research Design.

Although the history of case studies in organisational theory dates back to the early 1950s (see Blau, 1955; Gouldner, 1954; Roy, 1954; Selznick, 1949; Bryman, 1992), the recognition of the potential of case study research in the accounting literature is fairly recent (see Kaplan, 1986; Lukka and Kasanen, 1995; Scapens, 1990; Spicer, 1992). Over the last decade and half, case studies have become increasingly popular among accounting researchers (see Chew, 1993; Laughlin, 1984; Lawrence, 1990; Ryan et al, 1992). Notwithstanding this increase in popularity, what constitutes case studies still remains problematic in the accounting literature (Scapens, 1990; Spicer, 1992; see also Bryman, 1992; Yin, 1994). Various attempts have therefore been made to distinguish case studies from other research designs such as "action research" (Bryman, 1992), "qualitative research" (Bryman, 1992; Yin, 1994), "fieldwork" (Scapens, 1990), and "field-base research" (Spicer, 1992)[4]. Despite the divergence in views about what constitutes case studies in accounting research, there are also some points of agreements among accounting researchers. Perhaps, Hartley's (1994, p. 208) definition of case studies as "a detailed investigation often with data collected over a period of time, of one or more organisations, or groups within organisations, with a view to providing an analysis of the context and process involved in the phenomenon under study" captures the views expressed by most accounting researchers who have an interest in case study research. While this study recognises the need for a general understanding or definition of case studies, it maintains that of paramount importance is the need to indicate not only the focus of a particular case study but also the link between case study and the methodological position of the study.

Case studies provide research methods which can be used in a variety of ways by accounting researchers (Ryan et al, 1992). This study employs what Ryan et al (1992), label "explanatory case study". "Such case studies attempt to explain the reasons for observed accounting practices" (Ryan et al, 1992, p. 115). Explanatory case studies focus on a specific case and employ social theory to guide an understanding and explanation of the specific rather than producing generalisations. Explanatory case study is a complex interactive process which requires the researcher to review the variety of available theories which may be relevant to the case. Reviewing prior theories is a necessary foundation in explanatory case studies because it "will determine the way in which the researcher looks at the case" (Ryan et al, 1992, p. 122). Although this study reviewed the available theories on public sector accounting and financial

[4] For instance, Spicer (1992, p. 10) writes that "due to the relative newness of case research in management accounting there is still some confusion about what it encompasses".

management in developing countries before embarking on the empirical aspects of the study, it avoided an explicit commitment to any theoretical lens until after the evidence was collected. The avoidance of a prior theoretical commitment was to allow theories and issues to emerge during the evidence collection rather than imposing them on the case. The objective was to ensure that the 'explanatory case study' does not loose its potential of providing "deeper and richer understanding of accounting within its social context" (Ryan et al, 1992, p. 128).

3.5.2 Linking Case Studies and Interpretive Methodology

Accounting researchers who call for a view of accounting which goes beyond the "technical/rational perspective" also maintain that the current research methods for investigating accounting issues are unsatisfactory (see Burchell et al, 1980; Chua, 1986; Hopwood, 1983; Kaplan, 1986; Morgan and Smircich, 1980). For instance, Morgan and Smircich (1980), observe that the quantitative methods used in the social sciences which draw principally on the methods of the natural sciences, are appropriate for capturing a world view of the social world as a concrete structure. By analysing and manipulating data through such powerful mathematical techniques as multivariate statistics, Morgan and Smircich (1980, p. 498) argue:

> The social scientists are in effect attempting to freeze the social world into a structured immobility and to reduce the role of human beings to elements subject to the influence of a more or less deterministic set of forces. They presume that the social world lends itself to an objective measurement, and that the social scientist can reveal the nature of that world by examining lawful relations between elements that, for the sake of accurate definition and measurement, have to be abstracted from their context.

By assuming that human beings cannot be objectified as merely responding to their social world but actively contributing to its creation and recreation, interpretive researchers argue that "different ...methods are required for studying these phenomena, and more often than not they focus on qualitative rather than quantitative features of the subject of study" (Morgan and Smircich, 1980, p. 498).

Interpretive methodology advocates an approach to examining the empirical social world which requires the researcher to interpret the 'real world' from the perspective of the subjects of his or her investigation (Filstead, 1970). The direct observation of the empirical social world, however, requires an in-depth study which is made possible through case studies. Blumer (1969, p. 60) argues that social science (including accounting) researchers need to "respect the nature of the empirical world and organise a methodological stance to reflect that respect". By combining case studies method with an interpretive methodological perspective, this study of public sector accounting and financial management in a developing country organisational context is able to interpret the self-understandings of the organisational actors and thus "respects the nature of the empirical world". Additionally, interpretive methodology emphasizes a "holistic approach" which seeks to locate social systems in their practical context (see Ryan et al, 1992). Such an approach helps interpretive researchers to explain observed social systems and the practices of the human actors. To achieve this view, "interpretive researchers frequently employ case study methods" (Llewellyn, 1993, p. 233; see also Chua, 1986).

3.5.3 Gaining Access to the Research Site

In Chapter One it was stated that the Volta River Authority (VRA) is selected for empirical investigation in this thesis. Most case study advocates are quick to acknowledge that gaining access to an organisation for the purpose of conducting a case study can be frustrating and clouded with so many uncertainties (see Bryman, 1992; Chew, 1993; Hartley, 1994; Lawrence, 1990; Scapens, 1992; Stake, 1994; Strauss and Corbin, 1990; Yin, 1989; 1994). Being aware of this, the researcher was very concerned about gaining access to VRA for his research. This is because most researchers suggest that gaining access to the organisation is one of the issues which need to be resolved before the study even begins (see for example Lawrence, 1990; Yin, 1994). But in this project, the researcher could not 'do it the conventional way' because he arrived at New Zealand with the intention of writing a masterate thesis on 'New Zealand accounting'. However, following a successful completion of the masters degree, there was an opportunity to study for a doctorate which the researcher became very interested in. There is an old adage in the researcher's local language that "bing sung kam mini di yeli mugsira shei nire bang gbaabu". Translated as "most opportunities come with constraints and it is only through flexibility that one can seize such opportunities". The opportunity for the doctorate at Waikato was no exception because it came with a condition from the sponsors that "the project should be of developmental relevance to the applicant's home country". This meant that the researcher could only research into an issue that is deemed relevant to the development of Ghana[5]. He therefore decided to research into his long standing interest in Ghanaian public sector accounting using the VRA as a case study without prior contact for access to the organisation.

The potential difficulties of gaining access to VRA were compounded by the fact that access was sought in an election year. There was a strong possibility for the management of VRA to interpret the project as having a political motive[6] in which case access would have been denied. Notwithstanding that all the work that had been done (by the researcher) up to the time of fieldwork showed a strong interest in the VRA, the researcher also identified other organisations as a fall back position. However, it became clear (to the researcher) during the field trip that if VRA had rejected his proposal, it would have been extremely difficult to gain access to any other organisation that was aware of VRA's decision. Indeed it would have been hard to prevent the other organisations from becoming aware of VRA's decision given that one of them (Electricity Corporation of Ghana) shared the same premises as VRA's Head Office and the other (Ghana Water and Sewerage Corporation) occupies a building adjacent to VRA's Head Office. The researcher hardly knew about the locations of these other organisations (ECG and GWSC) as he had no strong interest in them before leaving Ghana to study in New Zealand.

Perhaps the single most important preparation that contributed enormously to the decision of VRA to provide access to the researcher were the letters (signed by the researcher's supervisors) which were sent to the Principal Officers of VRA (including the Chief Executive), prominent politicians (including the Deputy Minister for Foreign Affairs and former P.N.D.C. Secretary for Works and Housing), the Controller and Accountant-General, and influential Ghanaian academics (including those who serve on VRA's board meetings). It was not difficult to recognise that this was a 'good strategy' when the researcher arrived at Ghana for his evidence collection. Follow-up visits were made on some of the letters and it became clear that VRA had a positive response to the proposal (see Appendix 3.1). Most of the people we[7] wrote to had

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[5] Thus this adds to the justifications for the study of Ghana as discussed in Chapter One.

[6] This is because of the importance of VRA in the political history of Ghana (see the history of VRA in Chapter Six).

[7] "We" refers to the researcher and his supervisors.

already contacted the Chief Executive of VRA on the subject and the proposal was accepted before the researcher's arrival to collect evidence.

The first visit to the VRA Head Office was an exciting experience. The researcher's proposal was accepted under the impression that he was a foreigner who was coming to Ghana for the first time (perhaps because his name sounds Arabic). After meeting the Chief Executive, the researcher was referred to the Financial Advisor (formerly the Director of Finance), who was given the role of "research coordinator"[8] for this project. The Financial Advisor welcomed the researcher and his first question was "are you a Ghanaian?". The researcher replied emphatically "yes", thinking that was going to open further opportunities. "Then you know your way in the system", says the Financial Advisor. This statement later became known to the researcher when he was told, informally, that VRA had withdrawn most of the preparations (including hotel accommodation) they originally made for him when they had the impression that he was a foreigner. One thing that they did not change, however, was their openness throughout the entire research process. The enthusiasm with which VRA received the researcher was later explained (by the "deputy research coordinator" for this project) as stemming from their experience with researcher's (mainly electrical engineering scholars) coming from overseas. At last, the researcher's concern of gaining access to VRA became an exciting experience. A description of this experience is taken up later in the thesis when the evidence is presented. For now the focus of the thesis is turned to how the researcher went about his evidence collection after gaining access to VRA. This is presented in what follows.

3.6.0 Evidence Collection Procedures

The evidence collection procedures involved four research methods namely; interviews, documentary evidence, observation, and survey. These methods are presented here highlighting not only how they were employed at the research site but also how their conventional limitations were overcome.

[8] This was an informal role, which was often delegated to the "deputy research coordinator" for this project, a Supervisor in the Finance Department.

3.6.1 Interviews

In recent times, interviews have become the most widely used qualitative method in organisational research (King, 1994). Today interviews are used in a variety of ways by social researchers[9]. This study employs one of the varieties which has been labelled by Kvale (1983) as "qualitative research interview". Qualitative research interviews, according to Kvale, are those interviews which seek "to gather descriptions of the lifeworld of the interviewee with respect to interpretation of the meaning of the described phenomenon" (Kvale, 1983, p. 174). Kvale (ibid) further observes that "neither in the interview phase nor in the later analysis is the purpose primarily to obtain quantifiable responses" (p. 175). The goal of qualitative interview is to see the research topic from the perspective of the interviewee, and to understand how he or she comes to have this particular perspective (King, 1994, p. 15). The characteristics of qualitative interview are summarised by King in the following quote:

> a low degree of structure imposed by the interviewer; a preponderance of open questions; a focus on specific situations and action sequences in the world of the interviewee rather than abstractions and general opinions.

It could be argued from the above summary that qualitative research interviews are very much like what is "traditionally" known as "unstructured or open-ended interviews" in their conceptual basis (Mann, 1985). Thus in collecting evidence for this thesis, different questions were prepared for the various Departments to capture the specific situations of respondents (as discussed later). The questions only served as a flexible guide for steering the interview process. In most cases, respondents provided relevant discussions which went well beyond the questions.

In recent times some postmodernist ethnographers (who fall within the broader "qualitative research" label), notably Marcus and Fischer (1986), Crapanzano (1980), and Gluck and Patai (1991) have concerned themselves with some of the assumptions and moral problems in interviewing and with the controlling role of the interviewer. These concerns, according to Fontana and Frey (1994), have led to new directions in qualitative interviewing, focusing on; importance of the researcher's gender in interviewing, the interviewer-respondent relationship,

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[9] It is not the intention here to provide a detailed discussion of the varieties apart from indicating that 'qualitative research interviews' are conducted in this study.

and the issue of race. The concerns of the postmodernist ethnographers, as outlined above, helped the researcher to structure his interviews and make observations regarding the interviewee's gender, and how the interviewer-respondent relationship serve as a constraining or enabling element during the interviews.

A major drawback of qualitative interviewing is the large amount of time required of both the interviewer and the interviewee. King (1994, p. 34) suggests that a suitable way around such a problem is for the researcher to send a letter with basic details of the study's aims and what is required of the interviewee, with a follow-up phone-call in which the researcher can explain his or her aims in more depth and answer any queries. This should be followed up with the 'actual' interview. King (ibid) argues that once people have made such a commitment it is hard for them to withdraw from the project at a later period. These recommendations guided the interviewing process in this study as discussed below. Respondents were first served with a summary of the research objectives (for some respondents up to two weeks before the actual interview), and later followed by a phone-call to confirm the interview date and time. It should be noted however, that the presence of a "research coordinator", who ensured the cooperation of organisational participants, did not permit a complete adherence to the recommendations suggested by King, because some of the interviews and follow-up phone-calls were made by the research coordinator on behalf of the researcher.

The interviews which were conducted in this study can be categorised into exploratory, in-depth, and 'follow-up' interviews. Permission was sought and duly granted for all three categories to be recorded on tape and later transcribed. In addition, the researcher took notes of 'major' points as a precautionary measure and for further probing. Permission was also granted for the researcher to use direct quotes (i.e. the words of interviewees as evidence of their perspectives). To retain confidentiality, which interviewees insisted upon, all interviews are code numbered and these numbers are unknown to organisational participants. In all the interviews the researcher started by seeking to know the background information on the interviewee (i.e. his or her qualifications, and work experience). The objective was to gain an understanding of the calibre of employees VRA currently engages[10]. This was necessary because of the claim that developing

[10] A detailed list of the interviewees is reproduced in Appendix 3.2.

countries lack qualified personnel especially in the public sector (see Gujarathi and Dean, 1993).

With the exploratory interviews, the researcher sought to understand, in a much broader fashion, not only how the interviewee goes about his or her operational activities but also how the accounting and financial management systems impact on his or her daily routine as an employee of VRA. The objective was to uncover the taken-for-granted daily experiences of interviewees. In pursuit of this, the interviewees were served with copies of the research objectives together with eight 'general' (unstructured but focused) questions on VRA and its accounting and financial management systems (this is reproduced in Appendix 3.3). Although the questions were general, they also related to the particular functions of the Department. For instance when the researcher found that VRA had recently formed a Department[11] responsible for the environmental effects of its operations, the researcher asked the Director of Real Estate and Environment general questions around that subject. Most interviews in the category included Directors and Managers of Departments other than Finance. The interviews in this category lasted between thirty minutes and one hour depending upon the issues raised by the respondent.

Most in-depth interviews were conducted with the Director of Finance and his staff (including the area offices at Akuse, Akosombo, and Tamale) since this formed the core of the research. As a preparation for the interviews, interviewees were given two sets of questions: those which were general pertaining to the finance and accounting function at VRA and those which relate to the particular operational functions carried out by the interviewee (samples are found in Appendix 3.3). The in-depth interviews had two objectives: to obtain a descriptive account of the accounting and financial management systems, and to evaluate those systems in terms of the "deficiency" or otherwise of the technical rationality of the system. The latter objective required probing questions on issues which were both controversial (e.g. the VALCO renegotiations) and susceptible to differing interpretations. One of the in-depth interviews looked more informal as it was conducted during lunch with the interviewee because he was really a 'busy person'. All interviews conducted at the Electricity Corporation of Ghana, one of VRA's major customers, were in-depth interviews because of the small number of interviewees involved. Interviews in

[11] By renaming the "Real Estate Department" as "Real Estate and Environment Department".

this category lasted between one hour and two hours depending upon the 'mood' of the interviewee.

During the field work, the researcher played back some of the tapes at night to reflect over the day's work. This invariably resulted in the need to seek clarification on certain issues which were either unclear to the researcher or required a substantive support. Follow-up interviews therefore became necessary. During the follow-up interviews most interviewees produced documents including memos to buttress their views. With the exception of two of the follow-up interviews which were conducted on phone and one by facsimile, all the interviews in this category were a face to face situation. The duration of follow up interviews also ranged from thirty minutes to one hour. Some of the follow up interviews were conducted later when the researcher started analysing his empirical evidence in New Zealand. These 'interviews' were carried out either by facsimile or on phone (the former being the major mode of contact). In addition, during the in-depth and exploratory interviews, the researcher noted down certain names which were mentioned (by interviewees) in connection with relevant issues to the study. With the permission of the interviewee, the researcher arranged follow-up interviews with these people.

3.6.2 Documentary Evidence

In this study documents refer to any written materials that may be used as a source of information about the behaviour of the interested parties in the existence of VRA. Two approaches to document analysis have been suggested in the literature: the historian's approach and the sociological approach (Phillips, 1966). While the historian's approach to the use of documents involve an exercise that seeks to establish credibility, and is concerned with such questions as "was the primary witness willing to tell the truth?" (Phillips, 1966, p. 125), the sociological approach turns to be more concerned with "analysing statements in order to use them to develop and test propositions that will explain and predict" organisational and human behaviour (Phillips, 1966, p. 126). The categorisation proposed by Phillips is found problematic for the purpose of this study on grounds that he tends to ignore postmodernist appreciation of history (see Gallhofer and Haslam, 1991; Haslam, 1991) and also portrays sociology as a single paradigm discipline. His categorisation therefore does not include the approach of this study which understands documents as context-bound evidence which should be interpreted within a particular context and might not make the same 'meaning' outside its original context. The position of this study on the use of documents is consistent with the interpretive theorists who argue that any social or empirical investigation should consider hermeneutics either as a useful starting point (Giddens, 1984) or integrated into the analysis (Llewellyn, 1993).

The documents which were analysed in this study include official records (Corporate Annual Reports, Contracts Documents, Annual Budgets, Memos, Reports on important company meetings, etc.), statistics from the government statistical department, reports and returns from the chartered accountancy firms/auditors, newspapers, periodicals, and popular journals. Since the World Bank and VRA's external auditors could not grant interviews because of the need to protect client confidentiality[12], their views were mainly gathered from documents which were provided to the researcher. The special problems of documents for social research were borne in mind and properly addressed where encountered. These problems, according to Stacey (1969, p. 46) are captured in the following two questions: "Are they genuine?" and "Of whom are they representative?". The researcher tried to establish the "genuineness" of the documentary evidence by making comparisons with the evidence provided during interviews and subsequent non-participant observation before subjecting it to interpretations during the analysis phase of the research (see section 3.6.6). Discussions of some of the documents with organisational participants also clarified the 'representativeness' of the evidence produced in documentation.

Similarly, Forster (1994) writes that critics of document analysis often question the rigour of such analysis. He suggests that since some documents are invariably political and subjective, researchers should not take the "documents at face-value, rather information from documents should be regarded as context-specific and as data which must be contextualised with other forms of research methods" (p. 149). Such documents need to be carefully checked, interpreted and triangulated with other data sources, Forster maintains. This recommendation is consistent with the approach of this study to the use of documents (as noted above) and was therefore adhered to throughout the entire study. For instance, the interpretation of the World Banks' reports which provides evidence of the strength of VRA's accounting and financial management systems paid due regards to the particular rationale for producing the report. That is, whether the report was

[12] Even though VRA had granted permission to these institutions.

produced to justify an investment to be made in the VRA, or to support a loan that had already been granted. In addition, the researcher probed to understand whether organisational actors participated in any form towards producing those reports. These investigations were necessary to establish the 'independence' of the views expressed in the report. Other documents were subjected to similar scrutinies.

3.6.3 Non-Participant Observation

Morris (1973, p. 906) offers a 'narrow' explanation of observation which defines it as "the act of noting a phenomenon, often with instruments, and recording it for scientific purposes". In this study, observation is seen in a much 'broader' perspective by not limiting it to only visual evidence collection, but also all the human senses from smell to hearing, taste, and touch. This view is informed by Adler and Adler's (1994, p. 378) description of observation as consisting of "gathering impressions of the surrounding world through all relevant human faculties". The methods of observation used in the social sciences fall into two main groups: Participant and Non-participant observation (Stacey, 1969). The latter is employed in this study. While in the former the researcher joins the group that is being studied as a member and attempts to be at one part of observed as well the observer, in the latter case the observer is not part of the observed. In non-participant observation the researcher can either be hidden or known to the organisational actors. While each of the roles have their advantages, the researcher in this study made his role known to the organisational members of VRA. This was to ensure that members of the organisation do not feel suspicious about the researcher as it was thought that organisational members would remain 'natural' only if they were assured that their actions were not going to get them into trouble after the researcher had left. The researcher adopted this strategy because of the politically turbulent nature of the environment of public sector organisations in Ghana especially given that public sector organisations are currently undergoing structural reforms (see Chapter Eight).

Observation is a technique which is used not only by researchers but also by societal members in their everyday world. What differentiates the observations in this study from those of everyday-life actors is its systematic and purposive nature (see Adler and Adler, 1994). Despite the purposiveness of the observation in this study, a major strength of the technique lies in the fact that the researcher did not work with any predetermined categories which could act as constraints on the phenomenon observed. However, the researcher constructed 'theories' that generated categories and posited the linkages among them (see Adler and Adler, 1994, p. 382). This allowed the researcher the freedom to alter the problems and questions being pursued as he gained a deeper knowledge of the organisation and its members.

The observation of VRA's accounting and financial management systems in action was carried out bearing in mind that those systems do not operate in isolation but as an integral part of the governance of VRA. Observation at VRA was conducted over a period of two and a half months which made the researcher to experience 'first-hand' how the accounting and financial management systems at VRA operate in practice. The observation quite often re-enforced the responses during interviews. The researcher noted that some organisational members could be changing their attitudes (i.e. the way things are done) to meet the official requirements during the research period. Probing questions were sometimes asked during observation to ensure that misunderstandings were minimised.

The motivation for carrying out observation at VRA is that when combined with other research techniques such as interviews and document analysis observation produces great rigour (Morris, 1973). Therefore the researcher thought it would be more rewarding to include observation to further enrich the evidence gathered for this study.

3.6.4 Survey

An important interest group which the researcher sought views from will loosely be referred to in this study as the Ghanaian public. Since this study argues that development should be understood in broader terms to include people-centredness (see Chapter Eight), it was found relevant to seek the views of the members of this group given the role of VRA in Ghana's socioeconomic development. In carrying out this survey, the researcher 'randomly' selected members of the Ghanaian public to be included in the study. The survey involved one hundred respondents each in three regions in the country (i.e. Greater Accra and Ashanti in the South, and Tamale in the North). The selection of these three regions was based on the size, political influence, and geographical location. Ashanti is the largest in terms of population and the Capital

City of Ghana is located in Greater Accra region, while Tamale is the largest city in the North.

The objective of the survey was to gain the perception of the Ghanaian public about the role of VRA in the development of Ghana as reflected in their perception of the nature of power supply and prices for residential purposes. It also sought the views of the Ghanaian public on the contract between VALCO and the VRA represented by the Government of Ghana. The researcher drafted fifteen questions (see Appendix 3.4) which were administered by research assistants in three regional and six district capitals. The research assistants were undergraduate students at the School of Administration, University of Ghana. Since most of the respondents were illiterate, the research assistants had to explain the questions and write down responses from the respondents. The thrust of the questions centred around the perception of power cost to the public and what changes they expect from the government. Another issue that was of importance was the views on a possible privatization of VRA. The survey results were analysed using a spreadsheet package to determine the dominant views among respondents and then presented in the 'story'.

3.6.5 Triangulation of Methods and the issue of Reliability and Validity

Many of the debates about the merits of particular research methods focus on questions of reliability and validity (Haralambos and Holborn, 1992). Researchers in the "dominant scientific approach" have often questioned the reliability of qualitative research methods (see Donaldson, 1995). Reliability under the scientific approach is seen as "the extent to which evidence is independent of the person using it" and validity is "the extent to which the data are in some sense true" (Ryan et al, 1992, p. 123). The explanation offered to substantiate reliability and validity in the scientific approach are problematic for the qualitative case study researcher. In the approach of this thesis to case studies the researcher is not perceived as an external entity to the case but as an essential element actively involved in the interpretation and explanation of the case. Ryan et al (1992, p. 123) support this view when they maintain that qualitative case study researchers should "assess the contextual validity of their evidence" rather than borrow a criteria from the "scientific approach" which contradicts the epistemological and ontological underpinnings of a qualitative case study. In this thesis validity is assessed at two levels: assessing the evidence with other kinds of evidence and assessing the source of the evidence with other sources; assessing the validity of the researcher's own interpretations of the evidence through follow-up discussions with respondents (*subter*, see also Ryan et al, 1992, p. 123). The issues of validity and reliability were therefore handled by triangulating methods which made it possible to compare evidence collected from the different sources.

3.7.0 Evidence Analysis and the Depth of Investigation Required

Strictly speaking, there is no "right way" of analysing evidence in interpretive research (Chua, 1986; Lawrence, 1990; Llewellyn, 1993). Several evidence analysis procedures have been used by interpretive researchers in the accounting literature not only because of the existence of a diversity of accounting research issues, but also the need for an appreciation of the differing contexts within which empirical accounting research is carried out (see for example, Chew, 1993; Lawrence, 1990). In seeking to "make sense" of empirical evidence gathered at the VRA, this thesis draws upon and refines the procedures suggested by Yin (1989). Yin (1989) identifies three dominant procedures in case study evidence analysis. The first involves a search for "patterns" or dominant themes in the evidence gathered and making comparisons with "patterns" established in the literature or theory (in this study, the simplistic view about the "deficiency" of public sector accounting and financial management systems in developing countries). Such a comparison will indicate the deviations from expectations derived from (or informed by) the extant literature. Ryan et al (1992, p. 124) support this procedure by observing that "as the case proceeds various themes and patterns should emerge" and this could form the beginning of the researcher's analysis. The second evidence analysis procedure which Yin labels "explanations building", requires the researcher to "look for causal links and/or explore plausible or rival explanations" (see Creswell, 1994, p. 76). An attempt is then made to build an explanation about the case. The third approach described as "time series analysis" traces changes in pattern over time. This thesis refined the first two procedures (i.e. "searching for patterns" and "explanation building") to make sense of evidence as discussed below.

To reach an informed conclusion on the deficiency claim in the context of the VRA, involved three 'levels' of analysis. At the first level, the study focuses on the thick descriptions of the technical procedures for accounting and financial management at the VRA as the basis for determining the effectiveness of the Authority's systems. The perspectives of external constituencies such as the World Bank and the Authority's multinational external auditors are also drawn upon at this level. The concern is not to find out the mere existence of particular control procedures but to gather detailed descriptions of how these procedures actually function in the financial resource management process. For instance, the existence of a budgetary control system provided a necessary but not sufficient condition for drawing conclusions on the strength of the Authority's systems. The central concern is how does the budgetary control system function? Thus although the focus of the analysis at this level is on the effectiveness of the Authority's systems from a technical perspective, the investigation was more rigorous than a simple survey of the systems (a technique which is common in the extant literature). Establishing the deficiency or otherwise in a technical sense was necessary not only because of the dominance of the technical view of accounting, but also because much of the current literature which posits deficiency of accounting systems in developing countries is technically orientated (*supra*). This analysis is also a prelude for an interpretive analysis informed by social theory. The first level of analysis is presented in Chapter Four.

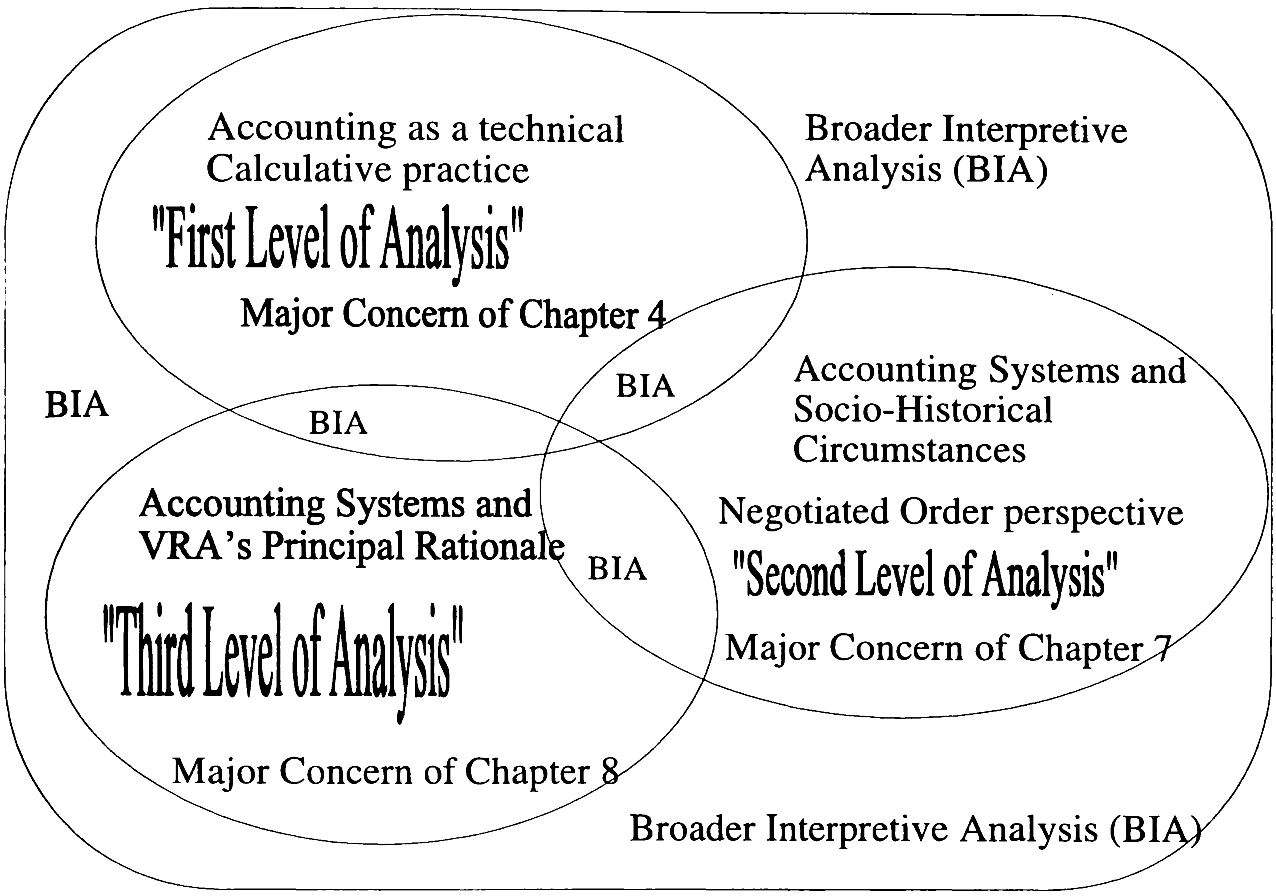
At the second level of analysis, the thesis draws upon the theory of organisations as negotiated orders to gain a richer and deeper understanding of how accounting and financial management systems arise at the VRA. This level of analysis seeks to problematise the overly simplistic technical view presented in the first level of analysis. Of particular importance in this regard are the historical circumstances of the organisation and how these enable an understanding of the current systems. A preliminary analysis of the empirical evidence was carried out to facilitate the choice of a social theoretical lens to guide the interpretive construction of VRA's accounting and financial management systems at the second level of analysis. To aid this preliminary analysis, the thesis drew upon the recommendations of Yin (1989) when he discusses the "search for patterns" in case study research evidence[13]. However, it differed significantly because the procedure used in this study did not seek to make a simple comparison between the third world public sector accounting and financial management literature and the evidence gathered at the empirical site. Rather the identification of major themes provided a foundation for a broader interpretive explanation that is grounded in social theory. The preliminary analysis pointed to

[13] A detailed description of the procedures involved in "searching for patterns" is provided in Yin (1989).

"negotiation" as a central element in not only VRA's accounting and financial management systems construction process but also as characterising the entire existence of VRA (*subter*). This suggested the fruitfulness of the "negotiated order perspective" espoused by Strauss and his colleagues (1963; 1964, also Strauss 1978) and other theories of negotiation (*supra*, Gulliver, 1979; Young, 1975; Zartman, 195; 1978) as the lens for making sense of empirical evidence at the second level of analysis. The theories of negotiations which serve as the theoretical lens for interpreting empirical evidence are discussed in Chapter Five. The negotiated order perspective is then mobilised to further interpret VRA's accounting and financial management systems in Chapter Seven.

The third and final level of analysis focuses on an evaluation of the effectiveness of the Authority's accounting and financial management systems within the context of socioeconomic development of Ghana, the principal stated rationale for the establishment of the VRA. This required the adoption of a particular conceptual understanding of development in view of the divergent notions of the concept in the current literature. To ensure a rigorous investigation, at this level, the thesis abandons the dominant economistic notion of development for the Brundtland Commission's notion of sustainable development. Thus at the third level of investigation, the extent to which the Authority's accounting and financial management systems reflect the people-centred dimension and environmental or ecological aspects of sustainable socioeconomic development is explored. An explication of the Commission's notion of sustainable development is provided as an introduction to Chapter Eight which presents the third level of analysis. A summary of the evidence analysis procedure is captured in figure 3.1 below.

Figure 3.1 Diagrammatic Representation of Empirical Evidence Analysis



It is important to note that the circles overlap because the three perspectives, as presented in the diagram, are not completely water-tight compartments. That is to say, the various levels are designed to show the emphasis of the thesis at any point but these levels are strongly interrelated because of the overall interpretive methodological orientation of the thesis.

3.8.0 Chapter Summary and Conclusions

In this chapter the methodological and methodical position of the thesis are elaborated. A discussion of the ontological and epistemological assumptions of the thesis is provided as an aid for understanding the approach to the research. The interpretive methodological perspective is adopted and its tenets are clarified. The chapter also discussed the 'explanatory case study research design' and presents the specific procedures (including interviews, documents, observation, and survey) which were employed to collect empirical evidence at the research site. The chapter also provided the procedure for empirical evidence analysis and the depth of investigation required to enable a conclusion on the deficiency claim in the context of the VRA. A preliminary analysis of the evidence leads the researcher to identify the theories of negotiation (in particular the "negotiated order perspective") as the theoretical lens for interpreting the evidence at the second level of analysis. A discussion of the negotiated order perspective is taken up in Chapter Five. The next chapter presents the first level of empirical evidence analysis.

Chapter Four

Accounting and Financial Management Systems at the VRA: The Technical Façade

4.1.0 Introduction

Chapter Three elaborated the methodological and methodical orientation of the thesis. This chapter provides an empirical exploration of VRA's accounting and financial management systems from a perspective which represents accounting as a technical calculative practice. The chapter presents evidence of how organisational actors perceive and describe the accounting and financial management systems which guide not only interactions within the organisation but also between the VRA and other organisations. These perceptions drawn from interviews and relevant documentations, represent the "official view" which an outsider (such as a typical researcher) would observe or be told[1]. The objective of Chapter Four is to elaborate how it is most unreasonable in terms of the approach taken here to characterise the formal procedures for accounting and financial management at the VRA as "deficient" as suggested by the current literature on public sector accounting in developing countries (see Chapter Two).

The rest of Chapter Four is organised as follows. Following an explication of the "technical façade" (an important concept used in the thesis), the chapter elaborates the statutory requirements for accounting and financial management of the VRA, as provided in the Volta River Development Act[2]. The chapter then introduces the structure of the Finance Department which is responsible for designing and implementing accounting and financial management systems at the VRA and further discusses the main reasons which were offered by organisational actors for the merger of the Accounting Department and the Corporate Finance Department in 1991/92. Evidence of financial control procedures and the perceptions of their effectiveness by organisational actors is provided using the structure of the Finance Department as the framework. The descriptions and perceptions are then drawn upon to explore the claim that public sector

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[1] As demonstrated in subsequent chapters, there is a need to go beyond these perceptions to uncover the underlying explanations not only for the technical accounting procedures but also the perceptions held by organisational actors.

[2] The Volta River Development Act is the establishing document which is perceived by the management of VRA to have a strong impact on how the Authority is managed.

organisations in developing countries have "deficient" accounting and financial management systems in the context of the VRA. Before concluding, the linkage between Chapter Four and subsequent chapters is provided.

4.2.0 The Technical Façade: Informants' Understanding

> All communication and all understanding are a matter of interpretive construction on the part of the experiencing subject (Glasersfeld, 1984, p. 24).
>
> The fieldworker's understanding of the social world under investigation must always be distinguished from the informant's understanding of this same world... To argue that we have become part of the worlds we studied, or that we understand them in precisely the same way as those who live with them do, would be a grave error (Van Mannen and Kolb, 1985, p. 27).

It was indicated in Chapter Three that part of the data collection methods in this study involved interviews and observations. The rationale for employing these methods was an attempt by the researcher to understand the practices of an organisation which he was only related to as a 'researcher'. In such a capacity one is likely to see and be told so many organisational practices and problems some of which might, at first sight, appear of little relevance to the current project. Prior research suggests that most of what organisational actors relate to a researcher (as an outsider) are the taken-for-granted practices, norms or procedures conceived in technical/rational terms which form the basis of their daily routine (see Lawrence, 1990). Quite often, the experiences of organisational actors are influenced significantly by the organisation's formal accounting control procedures (see Boland and Pondy, 1983). This is partly because:

> what is accounted for can shape organisational participant's views of what is important, with the categories of dominant economic discourse and organisational functioning that are implicit within the accounting framework helping to create a particular conception of organizational reality (Burchell et al, 1980, p. 5).

This view is emphasized by Boland and Pondy (1983, p. 224) when they write that:

> accounting is a unique element in the experience of organisational life... Accounting is one of the major formal sets of symbols available to organisational actors for ordering and interpreting their experience.

During the empirical evidence collection, the researcher realised that most of the experiences which organisational actors initially shared with him were descriptions of the "formal rationality of economic action" with emphasis on "accounting which is technically possible and which is actually applied" (Weber, 1969, Vol. 1, p. 85, cf Burchell et al, 1980, p. 20). Organisational participants presented thick descriptions and their perceptions of the formal procedures including the planning model, budgetary control procedures, pricing formulae, financial reporting policies, internal and external audit procedures, cash management practices, extent of computerisation, and issues of decentralisation of the accounting and financial management function[3]. These formal control procedures are referred to as the "technical façade" in this thesis (such a label is informed by the existence of scores of studies which seek to question the technical-rational role accorded to accounting, see Boland and Pondy, 1983; Burchell et al, 1980; Hofstede, 1985; Velayutham and Perera, 1996). In this chapter, an attempt is made to present these descriptions and perceptions of the participants as a basis for understanding the deficiency or otherwise of VRA's accounting and financial management systems[4]. This represents the first level of empirical analysis as discussed in Chapter Three. As indicated earlier, the chapter does not make any significant attempt, at this stage, to critically evaluate or interpret these views. Such efforts are deferred to Chapter Seven when we demonstrate how the technical façade (as described in this chapter) is embedded in socio-political processes through an interpretive reflection. Thus this chapter could be perceived as an attempt to document the informants' interpretive understanding of the world studied (see Van Mannen and Kolb, 1985).

However, to gain a clear understanding of the interpretive construction of organisational actors, probing questions were asked not only to ensure that reasonable justifications were offered for any perceptions held by organisational actors (for the purposes of the researcher's interpretive construction in Chapters Seven and Eight) but also to ensure that organisational actors provided

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[3] Thus in this chapter the effectiveness (i.e. deficiency or otherwise) of the Authority's accounting and financial management systems are understood in terms of these wide-ranging issues.

[4] It is important to note that the use of the descriptions of these procedures as a basis for evaluating the deficiency claim is also informed by the suggestions of various accounting researchers about how an effective accounting system should be constituted. For instance, in evaluating the management accounting function at the VRA, the researcher draws upon the views of Horngren et al (1994), regarding the nature and effectiveness of managerial accounting in organisations.

a detailed account of their experiences (see Glasersfeld, 1984). Such probing questions have enabled the researcher to provide 'follow-up discussions' on the various descriptive accounts of the accounting and financial management systems which were provided by organisational actors. These follow-up discussions are deemed important at this stage because of the contextual nature of some of the descriptions. An additional rationale for such follow-up discussions was to ensure that organisational actors agreed with the researcher's interpretations of the issues which were raised *(supra)*. Such an agreement was necessary because of the susceptibility of the issues to multiple interpretations including those interpretations (by the researcher) which organisational actors might not have intended. In sum, the technical façade is synonymous with the official, formal, or technical/rational view which organisational actors provided to the researcher quo researcher seeking to understand their life experiences at the Authority. Thus the technical façade refers to the procedures which are designed to "rationalise the intended or expected role of accounting... based on economic requirements" (Velayutham and Perera, 1996, p. 76). The remainder of the thesis in effect problematises this view by presenting an interpretive construction of the "processes" which underscore this rationalistic picture. These processes, according to Velayutham and Perera (ibid, p. 76), are "dependent on social values".

4.3.0 Volta River Development Act 1961: The Reference Point for Accounting and Financial Management at the VRA

During the empirical evidence collection at the VRA, it came to the researcher's attention that almost all organisational actors who participated in providing data for this study made reference to the Volta River Development Act as the document which provides the guiding principles for accounting and financial management at the organisation (see Power and Laughlin, 1996, for a critical understanding of this simplistic argument put forward by organisational actors). For instance, a senior member of the Finance Department emphasized:

> We have some statutory provisions which form the bedrock of our financial management procedures in the Authority and any effort to understand our systems should start from there (interview no. 02[5]).

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[5] To protect the confidentiality of interviewees, this numbering system is not in any predetermined order. In addition, some interviewees are given two or more numbers to ensure that the confidentiality is not breached.

To ensure compliance with these statutory provisions, they are reproduced in the Finance and Accounting Manual which details the procedures for interactions between the various Divisions of the Finance Department. The Finance and Accounting Manual (1995) states:

> ... statutory provisions and guiding principles for the finance and accounting for the business of the Volta River Authority are set out in Part III of the Volta River Development Act 1961. In view of its importance and impact on the aims and broad objectives in the provisions of this Manual affecting financial control and reporting it is reproduced ... (p. B1).

The two quotations and discussions with other organisational actors suggested to the researcher that it is crucial to gain a clear understanding of the provisions of the Volta River Development Act since it is perceived as having a strong influence on not only the way financial resources are managed at the VRA but also the perceptions of organisational actors regarding the systems for tracking these resources. As a Respondent noted:

> Even our external auditors, as appointed from time to time, have always tried to understand the important finance and accounting issues in the Act. This is because, you cannot understand what we do, in terms of our control procedures, without taking into consideration the provisions of the Act.... Auditors will not be able to express an informed opinion without a knowledge of the Act.... I think this should apply to you as a researcher (interview no. 07).

Issues relating to accounting and financial management of the Authority are spelt out in sections 21-26 of the Act. These provisions are stated and interpreted in this section and subsequently a critique is developed to demonstrate how some of these provisions have been downplayed or are simply contradicted over time. For instance, section 21 of the Act states:

> (1) It shall be the duty of the Authority to conduct its affairs on sound commercial lines, and in particular, so to carry its functions under this Act as to ensure that, taking one year with another, its revenues are greater than its out-going properly charged to revenue account.
> (2) The Authority shall charge to revenue account all charges which in the normal conduct of a business are proper to be charged to revenue account, including in particular, proper provision for depreciation of assets, or renewal of assets, and in addition all interest on borrowings, repayments to be made each year in respect of loans incurred by the Authority to the extent that such repayments exceed provision for depreciation, and proper allocations to reserve.
> (3) Without prejudice to the power of the Authority to establish appropriate reserves for

replacements or other purposes, the Authority shall establish and out of its profits make payments to a reserve for the purpose of expanding its activities.
(4) The Authority shall fix the rates at which it supplies the electrical power generated by it so as to ensure that it is able to comply with the requirements of this section.

Section 21 makes it quite clear and unambiguous that the VRA is a commercial public sector organisation which (reference to section 21) is supposed to have a high degree of autonomy. Such a view is also shared by the management and, to some extent, the lower level staff of the organisation. As a respondent in the Finance Department noted:

> In principle VRA is expected to be a reasonably autonomous organisation. But electricity is such an important issue in national development that... the organisation [VRA] is seldom autonomous (interview no. 13).

Another respondent remarked:

> But the autonomy granted to most public sector organisations is usually illusory because of the high degree of surveillance exercised by the government and related organisations... But it is good that the Government professes to have granted us an autonomy because that gives the Authority, at least, some grounds to challenge some of the political interferences which go on in other Government Departments... (interview no. 02).

Clearly the above views show the perceptions of organisational actors about the need for autonomy and the inadequacy of the extent of the autonomy currently granted to the Authority. Some organisational actors believed that in 'reality', the Authority's perceived autonomy has been shattered by prior commitments or contracts entered into between the Ghana Government (acting on behalf of the Authority) and other organisations such as the World Bank and Volta Aluminium Company (Valco). Such prior commitments serve as immutable hurdles in management's desire to pursue policies which are deemed very crucial to the developmental efforts of Ghana. A clear example of the contradictions is captured by the provision in subsection four of section 21 that the VRA is responsible for fixing rates for the power generated to ensure a compliance with the Act. However, in practice the Authority has very little influence (if any) in determining the rates charged for the bulk of its output consumed by Valco (VRA's major customer) and the Electricity Corporation of Ghana (responsible for distributing electricity in Southern Ghana)[6]. On this issue

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[6] A detailed illustration of this argument is provided in Chapter Seven.

one respondent indicated that:

> ...power pricing has been the most important issue which restricts the Authority's autonomy (interview no. 13).

Similar contradictions are illustrated in Chapter Seven which shows the strong political interference in VRA's management process and Chapter Eight which provides an argument that the dream of industrialisation in Ghana has not been realised partly due to the failure of the VRA to provide the 'cheap power' which was envisaged by the Nkrumah Government.

The interpretation of section 21 above is further reinforced or strengthened by the provisions of section 22 which deals with the Authority's power to borrow. Section 22 states:

> **(1)** In order to enable the Authority to meet expenditure of a capital nature (including provision for working capital) to the discharge of its functions under this Act, and in particular for the financing of the operations referred to in section 10 of this Act, the Authority may borrow on such terms and in such currencies as may be agreed between it and any lender, such sums as it may require.
> **(2)** The Authority may borrow temporarily, by way of overdraft or otherwise, such sums as it may require for meeting its current obligations or discharging its functions.
> **(3)** The Authority may charge its assets, undertakings and revenue with the repayment of any money borrowed together with the interest thereon and may issue debentures, bond or other securities in order to secure the repayment of any money so borrowed together with interest thereon and may do all other things necessary in connection with or incidental to such borrowing as are authorised by this section.
> **(4)** The President may from time to time, prescribe the maximum sums which the authority may borrow under either or both of subsections (1) and (2).

While section 22 permits the Authority to borrow from other organisations such as the international financial institutions, the section concludes that the President reserves the right to prescribe limits to this borrowing. Clearly, subsection four is perceived by management as a strong interference in the operations of an organisation that is expected to be "autonomous" and run its affairs "on sound commercial lines". In addition, borrowing from the international financial institutions does involve some conditionalities, which sometimes make it hard for the Authority to pursue certain "economically rational" policies for an organisation that is expected to run on sound commercial lines[7]. As a respondent observed:

> ... sometimes loans from the international financial institutions require the government to act as a guarantor. This obviously restricts the Authority's so-called autonomy (interview no. 02).

A discussion of the effect of borrowing (from international financial institutions) on VRA's accounting and financial management systems is taken up in Chapter Seven.

Finally, section 26 of the Volta River Development Act provides that:

> (1) The Authority shall:-
> (a) cause proper accounts and other records in relation thereto to be kept;
> (b) prepare an annual statement of accounts in such form and containing such particulars as the Auditor-General may from time to time direct, or may be required to satisfy its undertakings or engagements.
> (2) The accounts of the Authority shall be audited by an independent auditor to be appointed annually by the Authority subject to the approval of the Auditor-General, and the auditor shall make a report in each year on the accounts audited by him. The remuneration of the auditor shall be determined by the Minister responsible for Finance and shall be paid out of the funds of the Authority.
> (3) The Authority's Financial year shall end on the last day of December in each year.

Organisational participants maintained that the accounting and financial control procedures at the Authority are developed in response to section 26 of the Volta River Development Act. A respondent in the Finance Department noted:

> ... I don't remember what the section number is, but I remember it was made clear during my induction when I first arrived here years ago, that Finance and Accounting are guided by provisions of the Volta River Development Act. In my former employment, our emphasis was on the requirements of the Companies' Code..... Perhaps because it was a private enterprise. ....even in that case, it was assumed that I knew the requirements of the Code and not emphasised as in the case of VRA.... Yes, the Act is an important document for Finance and the entire Authority... (interview no. 04).

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[7] It was observed that in some cases the feasibility of a project becomes threatened by events subsequent to a loan approval by the international financial institutions, the Authority will need to seek approval to apply the proceeds of the loan to other more feasible aspects of its operations. This process of gaining re-approval, organisational actors argued, can be time consuming.

However, as will be demonstrated in Chapter Seven, the accounting and financial management procedures are also constructed in response to the requirements of the Authority's contracts with its financiers. Having provided the background for understanding the perceptions of organisational actors, the next section presents the descriptions of the accounting and financial management systems from the point of view of organisational actors.

In this chapter, the perceptions of organisational actors are presented along the lines of the formal structure of the Finance Department (it is important to note that this presentation does not follow the same way interviews were conducted[8]). The rationale for presenting the evidence along these lines is to make the structure of the Authority more visible, since it is also central to any effort which seeks to adjudicate the effectiveness of the systems within this organisation. Indeed, it partially answers the often taken for granted question "What do Accounting Departments do?" (as observed by Mouritsen, 1996). Section 4.4.0 therefore provides an explication of the structure of the Finance Department.

4.4.0 The Structure of VRA's Finance Department

Before 1991/92 the responsibility of managing financial resources at the VRA was shared by the Accounting Department and the Corporate Finance Department. The functions which were carried out by these two Departments "were distinguished along traditional Accounting and Finance lines" (interview no. 13)[9]. While the Accounting Department provided support in internal accounting for managerial decision making and external financial reporting, the Corporate Finance Department was "responsible for project evaluations, and advising management on which loans were more in line with the objectives of the organisation" (interview no. 13). In addition, the Corporate Finance Department was responsible for 'tariff setting'[10]. However, in 1991/92, the management of the organisation with the approval of the Board of

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[8] This is to ensure that interviewees' confidentiality is not breached.

[9] This was confirmed during an interview with the staff of Corporate Planning and Programming Department.

[10] Tariff setting refers to the process of determining the price of power. A discussion of this is taken up in Chapter Seven as an illustration of how negotiations underlie what is perceived as accounting logic at the VRA.

Directors decided to merge the two Departments into what is known as the Finance Department today. Organisational actors differed on their perceptions of the need for the merger. Principal among the reasons which were offered for the merger was the "need to avoid duplication of functions" (interview no. 51). Some interviewees, however, referred to the above as a "partial"[11] explanation of the circumstances leading to the merger. For instance, it was suggested by some interviewees that "the influence of external bodies such as Ontario Hydro[12] played a significant role in management's decision to merge the two Departments" (A staff member of the Corporate Planning and Programming Department, interview no. 28). Another staff member in the same Department observed:

> Although I was not an employee of VRA before 1990, I strongly feel that the influence of Ontario Hydro partly explains the merger of the Accounting Department and Corporate Finance Department. It is hard to say this, most of the staff when they return from Canada after a year's or two attachment to Ontario Hydro, try to emulate what they observed over there. This sometimes makes things difficult for us as they forget that we are in a third world country (interview no. 30)[13].

Other respondents were more critical of the merger by arguing that:

> I strongly believe that these people at the Head Office had something up their sleeve. After the merger, the position of Deputy Chief Executive Corporate Planning and Finance was created and Mr Bryan Davies, an Englishman who had a high reputation as a former World Bank employee, was appointed to that position. I believe this was necessary to attract loans from the World Bank since he was more known to them. .... I have evidence for what I am saying. First, since Mr Bryan Davies left, the position has remained vacant.

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[11] Partial in the sense that it does not capture "in full" what management possibly had in mind at the time of the merger.

[12] Employees of VRA are normally sent on "attachment" to Ontario Hydro in Canada to gain the "necessary exposure" to enable an understanding and possibly a smooth adoption of some of the engineering and financial procedures in Ontario Hydro. Similarly, under a bi-lateral co-operation, "management trainees" of the VRA are also sent to Harvard University for MBA and MPA degrees. Such trainees, when they return, are keen to implement some of the techniques they acquired on the MBA or MPA programs. Perhaps the most recent in this regard is the impending suggestion for the implementation of Activity Based Costing Systems at the VRA.

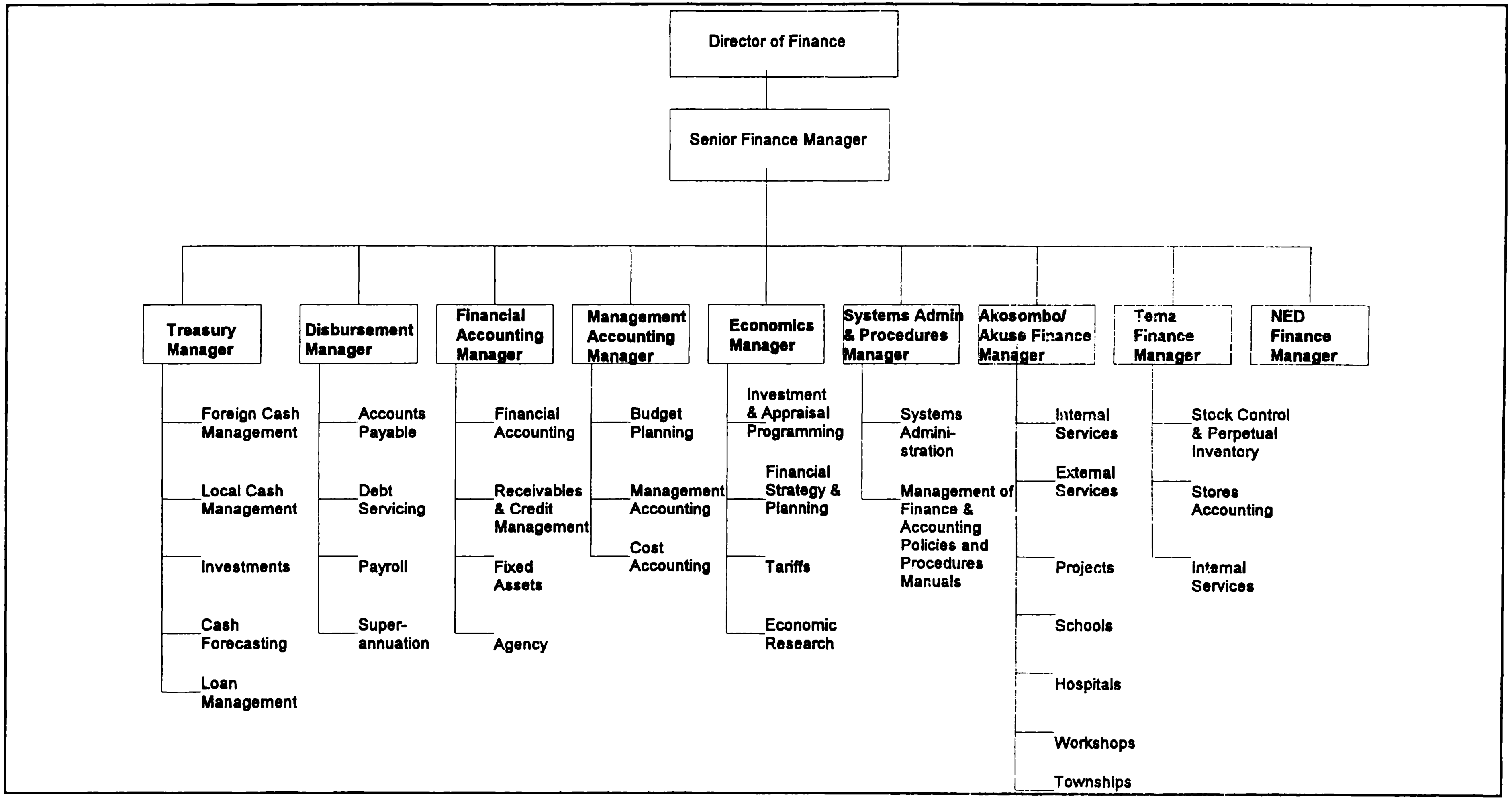
[13] The respondent gave the example of the "impending need to change from traditional overhead cost allocation system to Activity Based Costing" as resulting partly from the Authority's relations with overseas institutions (interview no. 30).

> Second, on one occasion, we compiled a Manual of our financial management procedures which was to be assessed by the World Bank as part of its conditions for a loan that the Authority desperately needed. This Manual had previously been refused by the World Bank prior to Bryan Davies' appointment. The same Manual was accepted for a loan involving a higher amount when Bryan signed his name and submitted it on behalf of the Authority (interview no. 15).

Although the reasons for the merger are important as an indication of how and why "structural conditions" have changed over the years, the structure of the "new" Finance Department is paramount in understanding how financial resources are currently managed at the VRA. The chart on the next page indicates the various sub-divisions of the Finance Department.

As the chart shows, the Finance Department is sub-divided into nine Divisions each with specific functions aimed at ensuring control over organisational financial resources. Each Division is headed by a Manager who is ultimately responsible for its performance and reports to the Director of Finance through the Senior Finance Manager. As pointed out in Chapter Three, interviews were conducted with each Manager and some of the staff in each Division. For the purpose of presentation in this thesis the nine Divisions of the Finance Department are condensed into six. To achieve this, the Akosombo/Akuse, Tema, and N.E.D. Finance Offices are grouped under the heading "Area Finance Offices" because the three area offices do not only share similar characteristics, but also share common views about the Authority's accounting and financial management systems (as discussed later). Similar reasons underlie the combined discussion of the Treasury and Disbursement Divisions. The perceptions of these interviewees are presented in the next section.

Structure of VRA's Finance Department



4.5.0 Budgeting and Planning Process: The Management Accounting Function

Despite disagreements about its humble origins, managerial accounting has developed to become an important facet of any "effective" organisational accounting system (see Hayes, 1983). Enthoven (1977; 1988) observes that despite the strong role which has been accorded managerial accounting in the advanced Western capitalist nations, the techniques of management accounting are still non-existent or rudimentary in public sector organisations of some developing countries (*supra*). Thus in an effort to gain an understanding of the effectiveness of the Authority's accounting systems, the researcher sought to determine whether VRA had any management accounting systems and how these systems actually function in organisational management process. Two important aspects of the managerial accounting function (budgeting and planning) were explored. The empirical exploration revealed that organisational participants perceived budgeting and planning as playing a very crucial role in the internal management process of the VRA. As a respondent in the Budget Division noted:

> ... I am not being biased, but it is an obvious fact that management accounting is important for an organisation like the VRA to function properly. That is why so much is expected of us in this Division of the Finance Department. ...we are at the helm of affairs in the Authority providing each Department, Area and Division with quantified data for decision making. ....they count on us for their daily decision making (interview no. 24).

This section therefore provides not only a description of the budgeting and planning process but also the perception of organisational actors about the effectiveness of these processes. The discussion presented in this section is based largely on the researcher's interviews and interactions with staff of the Management Accounting Division (and to some extent the Corporate Planning and Programming Department) since these two sub-divisions are given the responsibility for providing each Department with detailed planning and budgeting instructions. As a respondent in the Corporate Planning and Programming Department observed:

> ....our Department is a service one .... we are expected to ensure that what goes on in other parts of the Authority is in accordance with predetermined plans. Quite often, we team up with the Budget Division to ensure this.....yes, this has always worked well. .... no doubt, the Authority is currently highly regarded among the Ghanaian public corporations because of the extent to which we plan and execute our tasks.... Yes, there are occasional surprises but never anything major to derail our success story. We scrutinise our

economic environment very well (interview no. 29).

In executing its function, the Management Accounting Division views planning, budgeting and forecasting as "distinct elements of an integrated process" and therefore provides detailed instructions on each of these elements to ensure that the systems are clearly understood by organisational actors. The three distinct yet integrated processes are described below.

4.5.1.1 The Authority's Planning Model

To ensure control over organisational financial resources, Horngren et al, (1994) observe that management must constantly engage in planning for both the short-term and long-term future of the organisation. Horngren et al, (1994) maintain that planning is an essential facet of the managerial accounting function which requires maximum attention from management. Drawing upon Horngren et al, (1994) therefore, this sub-section contends that the effectiveness of an organisation's accounting and financial management systems could partly be reflected by the nature and extent of planning carried out in the organisation. The empirical exploration of VRA's systems of financial management revealed that the Finance Department has designed a detailed planning model which guides departmental and organisational decision making processes. As a respondent in the Corporate Planning and Programming Department observed:

> you can't run an organisation like VRA successfully without engaging in detailed planning. ...the risk is too high. We all are aware of the importance of planning in the Authority.... (interview no. 28).

A detailed description of the planning model was provided by organisational actors and reported in this sub-section of the thesis.

The model begins with a preparation of a Departmental Statement of Objectives (DSO) which derives from the broader Corporate Statement of Objectives (CSOs). An interviewee in the Corporate Planning and Programming Department noted:

> within the broader objectives of VRA, each Department and Division of the Authority is required to produce a statement of objectives which it intends to pursue over the next financial year and beyond. ....this is usually the responsibility of departmental Directors who are expected to ensure goal congruence. Objectives identification is very important for an effective running of a large organisation like the VRA....it is important to get it

> right... Our Department therefore scrutinises all statements of objectives... (interview no. 29).

From DSOs, long term plans are prepared by each Department in conjunction with the Planning and Programming Department. Detailed "Corporate Instructions and Policies" are usually provided under the following headings (Accounting and Finance Manual 1996, p. E3):

a. Corporate Instructions

This forms the first stage of the Authority's planning model. Annually, the Planning and Programming Department reviews the following to ensure not only that the Authority remains aware of changes in its environment but also that the process is systematic and efficient:

i) Economic assumptions for the plan

ii) Format for the plans to be prepared

iii) Timetable for the planning process

iv) Details of persons accountable for production and approval of plans

v) Statement of Objectives for VRA and each Department

vi) The length of the Plan period and Review intervals.

On the issue of corporate instructions a respondent remarked that:

> ...it is always important that the Authority constantly seeks to understand the changes occurring in its environment. We therefore undertake a review of domestic and global economic trends to ensure that we are not overtaken by events (interview no. 28).

The review of the above issues enables the Planning and Programming Department to advise the various Departments, Divisions and Areas on any issues which have to be addressed at the initial stage of the planning process. As a respondent noted:

> When we provide Corporate Instructions to the various Departments, we expect them to examine their statements of objectives to ensure any relevant changes have been incorporated... The instructions also serve to remind Departments about deadlines in the planning process and the need to meet these deadlines... (interview no. 28).

b. Business Assessment

The Planning and Programming Department also carries out, on an annual basis, an assessment of the business environment. A summary of the assessment is usually given as an introduction to the Plan. Each annual assessment covers the following areas:

i) Market share - current and potential[14]

ii) Market opportunities

iii) Legislative environment

iv) International implications

v) Operational methods - changes, alternatives

vi) Threats

Respondents noted that this aspect of the planning model is very crucial and will assume more importance if the government implements its policy of restructuring the power sector (*subter*). On this an interviewee remarked:

> I will say that the extent to which we are able to get our business assessment right has always been important in the management of the Authority. But if the changes proposed by the government are carried out, we will have to even carry out business assessment carefully, because the changes will introduce competition and you can't afford to make a mistake in a competitive situation (interview no. 30).

Another respondent noted:

> ... Business assessment is already taking a significant amount of our planning time and it will take more with the impending changes (interview no. 29).

c. Strategic Direction

At this stage in the planning process, each Department usually states how the Corporate objectives and its own objectives can be met with particular reference to the business assessment. Alternative strategies are identified and the preferred strategy fully justified. These alternative strategies spell out the direction of the Department and the extent to which this is consistent with

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[14] Although the VRA currently has no competitors, management is aware of the potential competition that will inevitably be introduced by the impending Power Sector Restructuring Programme in Ghana (this is discussed later in Chapter Eight).

the CSOs. On this, a respondent noted:

> Each Department has to state the alternatives strategies and justify why a particular strategy should be adopted ... this ensures consistency and allows departmental Directors to carefully consider each possible alternative.... (interview no. 30).

d. Financial Evaluation

This stage of the planning process requires each Department to provide a financial evaluation of its plan with sufficient detail to identify the different economic and operational areas defined in the business assessment. The evaluation usually includes a Profit and Loss Account, Balance Sheet and Cash Flow projections for the plan period. In addition, capital projects included in the Plan are required to be evaluated against the criteria for Capital Sanctions. To ensure that evaluations are not delayed and also accurate;

> the staff of the Finance Department usually provide services to the other Departments in carrying out their financial evaluations during the planning stage (interview no. 30).

e. Responsibility for Planning

Ultimate responsibility for departmental Business Plan and for notification of management when an agreed strategic direction is materially threatened, or where previously unforeseen opportunities emerge rests solely on the various departmental Directors. However, the Director of Planning and Programming remains responsible for ensuring that each individual Department's plans are prepared in compliance with Corporate instructions and that they adhere to VRA policy. A staff member of the Corporate Planning and Programming Department remarked:

> We are ultimately responsible for planning in the Authority so we always ensure that the various Departments engage in detailed planning. That is our function... so we always make sure it happens... (interview no. 28).

4.5.1.1A Follow-up Discussion on the Planning Model

To ensure that the planning process as described above was actually practised at the VRA the researcher engaged the Director of Corporate Planning and Programming and the Manager for the Budgeting Division and staff members of these Departments in a discussion. To begin this discussion, the researcher indicated that the planning process as described was quite detailed and might require a lot of departmental time. Although the Directors and their staff members agreed with this view, they reiterated that such a rigorous planning process was necessary because of a number of factors. Prominent among these factors was the need to keep a good image about themselves in the eyes of international financial institutions[15]. A senior staff member of the Finance Department observed that:

> Without the support of the international financial institutions VRA will run into real financial difficulties, so it is only reasonable for us to meet their funding requirements (interview no. 28).

In terms of the costs involved in delivering such a rigorous process, the staff and directors were of the opinion that this was only possible because of the presence of a competent work force compared to similar public sector organisations in Ghana. A respondent noted that:

> VRA attracts better qualified staff than most other public corporations....perhaps, only Ghana Airways is in the same category as VRA (interview no. 30).

This claim of competency of staff was evaluated[16] during an interview with some staff of the Electricity Corporation of Ghana (E.C.G.) and the reaction was mixed. While the Director of Finance at E.C.G. was of the opinion that VRA did better in terms of Planning and Budgeting, he clearly dismissed the claim that this was due to the presence of a competent work force. However, the Managing Director (M.D.) of E.C.G. indicated that before he joined the organisation he was a Deputy Chief Executive of the VRA and upon taking up the position of M.D. at E.C.G. he introduced a lot of reforms including improving the conditions of service to attract competent staff and also providing training facilities for existing staff. Though he specifically did not accept VRA's claim of staff competency he accepted that the VRA was "doing better in terms of its accounting and financial management for many reasons" (interview no. 60). An interview with an officer of the Ghana Public Services Commission (GPSC) also revealed that VRA is one of three public corporations which have always provided inputs on their performance

[15] See Chapter Seven for a detailed discussion of how this relations with international financial institutions and prior organisational commitments play a constraining role in the Authority's desire to implement conventional accounting logic in aspects of its operations.

[16] Such an exercise was necessary because the claim contradicts the findings of Gujarathi and Dean (1993) that the inability to recruit and retain qualified staff remains a serious problem in third world public sector management (see quotation in Chapter Two).

contract not only regularly but also without any delays. The respondent noted:

> Since I returned from the U.K. after qualifying as a Management Accountant [CIMA] a couple of years ago, I have been in charge of Performance Contracts between the VRA and the Ghana Public Services Commission. I have never had any delays in reports from VRA.... No, most of my colleagues can't say the same about their clients. ... I will not give specific examples but I have heard complaints about other corporations quite a number of times (interview no. 06).

While the officer was hesitant to speculate on the reasons for such an"impressive" performance, he did not rule out the possibility of the existence of an "efficient planning model and competent staff" at the Authority (interview no. 06).

In addition, to gain a further understanding of what is practised at the VRA in terms of the organisational planning process, the researcher asked if the staff of Corporate Planning and Programming Department could provide some evidence on the current strategic direction of the VRA. Upon consultation for confidentiality, a Memo dated 15th April 1996 was brought out for discussion with the researcher. The major issue in the Memo centred around the impending Power Sector Restructuring which the Ghana Government is keen to implement as part of its IMF-sponsored Structural Adjustment Programme. It was evident from the Memo that the VRA was very alert and envisaged that the Power Sector Reform Programme might "entail corporatising Departments and tariffs will have to be set right to encourage competition[17]" (cf. Memo from Director, Planning and Programming). In preparation for this potential deregulation, the Authority saw the need for a Master Plan Study on the proposed Power Sector Reforms. At the time of data collection for this thesis, the Study had already been contracted out to a consultant to be completed in 18 months. In preparation towards the impending restructuring of the power sector, the Director's Memo indicated that the Authority is currently considering the following strategies:

> i) VRA should try to influence the Restructuring Programme.
> ii) The Reform Programme would entail the creation of strategic Business units e.g. Generation, Hospital, ED & C, etc.
> iii) Some VRA departments could be developed to provide consultancy services.
> iv) A re-engineering of VRA's business would be undertaken.

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[17] i.e. Making the various Departments both cost and revenue centres.

v) Activity-based budgeting system would be introduced in order to inject cost efficiency into the system.
vi) Rationalisation of manpower levels would be necessary.
vii) VRA would have to expand its export markets.

viii) VRA would have to tighten its internal control measures.

ix) Adequate compensation package/job security would be introduced in order to retain staff.

A summary of the strategic elements in the Authority's business as perceived by the staff of Corporate Planning and Programming Department is provided in Figure 4.1 on the next page. See Appendix 4.1 for details of the Authority's Strategic Direction from 1997 onwards.

4.5.1.2 The Budgeting Process

Each Department in the Authority usually prepares annual budgets "based on and consistent with long range plans" (Finance and Accounting Manual, 1995, p. E5). Annual budgets are subject to approval by the Departmental Director, the Director of Corporate Planning and Programming, the Director of Finance, the appropriate Deputy Chief Executive, and ultimately the Chief Executive. To ensure consistency and efficiency, annual budgets are prepared in accordance with Corporate Instructions and the Authority's budgeting policies as follows:

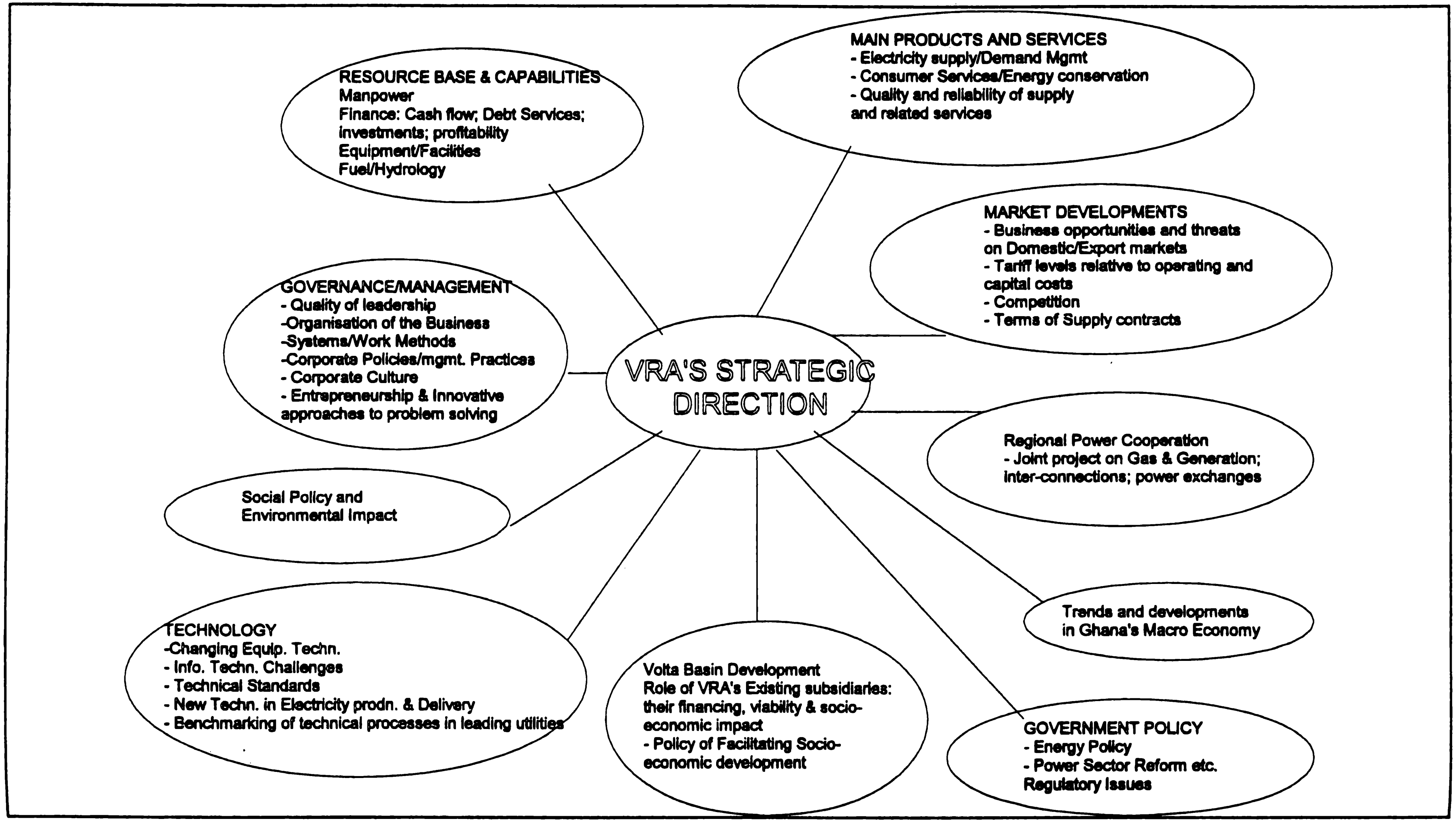
a. Corporate Instructions

As with the planning process (discussed above), budgeting at the VRA is usually preceded by Corporate Instructions issued to the various Departments, Divisions and Areas. It is the responsibility of the Management Accounting Division to issue Departmental Budget instructions each year covering the following areas:

i) Submissions - Detailed submissions are usually sent out to the various Departments regarding the content of Budgets and the information required about the Department and its area of operation.

ii) Timetable - While the dates for submission of Pre-budget Reviews and full Budgets are usually notified to the Departments early in the budgeting cycle, dates of review

Figure 4.1: Strategic Elements in VRA's Business (*Source: Memo, Director Planning & Programming, 15.4.96)*



meetings with the Budget committee are usually notified closer to submission deadlines.

iii) General Assumptions - Departments are provided with overall assumptions to be incorporated into their Budgets. However, Departments are expected to substitute more accurate assumptions in those instances where specific information is available.

By way of example, the Approved Corporate Budget for 1994 had the following general assumptions:

> 1. In 1994, the domestic load is expected to grow in consonance with the continued expansion of the national economy but at more than twice the rate of growth of the economy. The Government budget for 1994 indicates that real GDP growth is targeted at 5%. The statement also identifies the pursuance of rural electrification programme as one of its major highlights. However constraints in the supply situation have necessitated that the Authority limit energy generation and sales to levels based on 1993 actuals.
> 2. A major fundamental objective of the economy is to achieve an end-of-period inflation rate of 15%. This rate has been assumed for the Authority's projections in 1994.
> 3. The continued difference in local and foreign inflation will lead to further depreciation of the cedi[18]. Government has however announced strategies aimed at achieving the targeted level of inflation and the relative stabilisation of the value of the cedi. The 1994 year-end exchange rate and the contingency provision for system expansion in the year therefore reflect the expected movements in the value of the cedi against the US dollar (Approved 1994 Corporate Budget, p. 1).

iv) Economic Indicators - To achieve consistency throughout VRA, certain economic guidelines are set. These include but are not limited to:

general inflation

pay inflation

currency exchange rate movements.

v) Group Costs and Rents - Each Department's share of budgeted Corporate costs are notified to the Department Director.

A senior staff member of the Budget Division noted that:

> ...one of the major strengths of our budgeting process is the emphasis we place on clarity of corporate instructions (interview no. 24).

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[18] The Ghanaian local currency.

Another respondent in the same division remarked:

> Our budgeting practices have always been applauded by the World Bank and other financial institutions because of our ability to provide a detailed budget from a very simple process.... We have always been able to achieve this because of the attention we give to clarity of Corporate Instructions... Yes, it could be due to our relations with Ontario Hydro but our staff are also experienced... (interview no. 25).

b. Pre-Budget Review

The Department Pre-Budget Review is the first stage in the budgeting process. The Pre-Budget Review is an attempt to outline the direction of the "budget in macro terms, and quantify recurrent expenditure, investment proposals and staffing levels to enable targets to be agreed with management at an early stage in the budgeting process" (Finance and Accounting Manual 1995, p. E6). A staff member of the Budget Division remarked:

> ...the pre-budget review stage is vital because it enables us to avoid unnecessary delays in budget preparation (interview number 46).

The important issues which are contained in the departmental Pre-Budget review are:

> i) the forecast of the current year's results, to set the opening position for the budget period;
> ii) market trends;
> iii) major contract assumptions and pricing policy;
> iv) manning and productivity;
> v) key issues critical to success in the Budget period;
> vi) management action Plan for the Budget period, which realistically bridges the gap between current and budgeted performance;
> vii) major Capital expenditure proposals with details of payback, profit and cash flow effects for all new capital investments.
> (Finance and Accounting Manual, 1995, p. E6-E7).

Another respondent in the Budget Division noted that:

> ..once the pre-budget review has been carried out, we get everybody committed and the budgeting process proceeds without delays (interview no. 47).

c. Annual Recurrent Budget

This forms the second stage in VRA's budgeting process. Based on its results in the preceding budget period together with the current DSO (if it has changed), each Department prepares a budget which details not only the various objects of expenditure over the next budget period, but also the intended outputs and their target dates of achievement. Staff involvement at all levels in the Departmental budgeting process is highly encouraged to ensure that they do not only accept the plans as credible but also endeavour to achieve departmental performance levels set out in the budgets (interview no. 24). The same respondent remarked that:

> ...we take into consideration the fact that people are required to implement budget provisions and they should be consulted and encouraged to be involved in the process of setting targets.... motivation is always a factor....Otherwise the process can easily be defeated by executing staff or junior staff, in particular.... This has been the culture since the early days of budgeting at the Authority and has remained the secret to our success in budgeting at the VRA (interview no. 24).

From the Departmental Budgets, the Management Accounting Division then prepares a Consolidated Recurrent Budget and a Consolidated Capital Budget for the Authority.

d. Final Budgets

The individual departmental budgets and the consolidated budget are then finalised after they have been reviewed by the Executive (i.e. the Chief Executive in consultation with other Directors). A senior staff member in the Budget Division noted:

> After the individual departmental budgets have been consolidated into the Corporate Annual Budget, the budget then becomes the main management tool in the Authority.... Yes, changes are permitted but can only be justified in terms of the occurrence of unforeseen events... Some Departmental Directors do find justifiable issues subsequent to budget approval and we incorporate these into the budget...(interview no. 25).

e. Budget responsibilities

It is the responsibility of the Management Accounting Manager to coordinate the entire budgeting process and also consolidate the individual budgets to a Corporate Annual Budget. The Management Accounting Manager also ensures that departmental budgets are prepared in accordance with the Authority's policies.

> The head of this Division is responsible for co-ordinating the budgeting process and ... we always make sure all Departments and Divisions adhere to budget provisions... also without any delays... VRA is such that if you allow delays to occur from your Department or Division, it is easily noticeable... Most Departmental Directors are aware of this...(interview no. 25).

As mentioned earlier, it is not the purpose of this section to discuss or outline the various items in the Authority's budget. Rather the section has sought to capture a description of the process to enable discussions with organisational actors on their perceptions and evaluations of the technical procedures as guides for interactions within the organisation.

4.5.1.2A Follow-up Discussion on the Budgeting Process

To gain an improved understanding of how the budgeting model as described actually applied in the management of the Authority's financial resources, the researcher decided to probe further by engaging the manager responsible for budgeting and his staff in a discussion. Their views were sought on certain issues which were not clarified (or reflected) by the model. Most important among the issues discussed was the well argued case by Caiden and Wildavsky (1974) and Alam and Lawrence (1994)[19] that public sector organisations in developing countries face a high degree of environmental uncertainty which has a strong impact on the budgeting process (*supra)*. In response to this issue, interviewees were quite willing to accept that although the VRA is autonomous as far as its budgeting is concerned, environmental uncertainties usually impact on their budgeting process. Such uncertainties however, differed from the political issues which were identified by Caiden and Wildavsky (1974) and subsequently Alam and Lawrence (1994).

> ... there are uncertainties in any budgeting process, as I already indicated, but the careful planning we undertake and the extent of our autonomy makes VRA different from what you are saying....We do have uncertainties impacting on our budgeting process but this has never been political... The Ghana Government is very much aware that the VRA is carefully watched by international organisations which have huge investments in the Authority, so it has a limit to which it can interfere in our operations... Yes, it [the Ghana Government] does interfere but not in terms of budgets. Budgets are our internal management tools...(interview no. 25).

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[19] See also Hoque and Hopper (1994).

While the impact of political turbulence was perceived as remote (see the findings of Hoque and Hopper, 1994), a major uncertainty which was identified as impacting strongly on the Authority's budgeting process is the weather. Organisational actors observed that sometimes the budgets are "thrown out of gear" because of unforeseen weather conditions. Indeed, vagaries of the weather are a threat to the entire operations of the Authority since it depends solely on the Volta River for power generation.

> A major uncertainty which impacts strongly on our budgets is the weather... Efforts are often made to predict...but you can't always get things 100% right... (interview no. 25).

In order to avoid this over dependence on the Dam, the Authority is currently developing a thermal power generation project at Takoradi as a supplement for the hydro source. The effects of the weather on the Authority's budget were felt most during the severe draughts of 1983 and 1993. A senior staff member of the Budget Division observed "in fact we almost abandoned the budgets which were prepared for those years" (interview no. 24, this view was supported by the Director of Legal Services Department when he discussed the underlying legal implications of the Authority's relations with Valco in situations of low electricity output).

On the issue of political interference with budgeting especially from the sector ministry (see Alam and Lawrence, 1994), interviewees were of the opinion that the Authority's relations with the Ministry of Energy and Mines did not affect its budgeting process significantly. The extent to which the ministry affects the Authority's budgeting process is limited to the approval of power rates charged to the Mines and E.C.G. for domestic distribution. As a respondent noted:

> ... the ministry affects our budgeting process only marginally.... only in terms of revenue ... from some local customers... But the bulk of our sales is made to Valco.... Yes, the ministry does not directly affect our relations with Valco (interview no. 24).

They maintained that since the bulk of their revenues comes from the export sector, the impact of the Ministry of Energy and Mines was not as significant as portrayed by the researcher in his academic understanding (i.e. referring to the study by Alam and Lawrence 1994 in particular). To this effect they opposed the view that budgeting serves a ritualistic purpose in the relationship between the sector ministry (i.e. Ministry of Energy and Mines) and the particular public sector organisation (see Gambling, 1977). Some interviewees argued that, perhaps using budgets in a ritualistic sense could be applicable (to some extent) to the relationship between the Authority and the lending agencies. One organisational participant observed:

> Some of the loans we negotiate from the World Bank in particular require a detailed proposal of how the amount would be expended. These however normally involve major capital budgeting as opposed to recurrent budgets..... But operational budgets sometimes have a role because lenders would like to know how these would reflect on our revenues over the years (interview no. 19).

In his historical account of the Authority's accounting and financial management systems, a senior staff member of the Finance Department (with almost 33 years service at the Authority), remarked:

> In the early days of the Authority, there were no budgets in existence, nor were there any computers. Everything was done manually. By 1968, the World Bank came in looking for financial forecast and it was then that we started developing our budgeting system (interview no. 52).

Clearly, the senior staff member was emphasizing institutional compliance as argued by Covaleski et al, (1996) and Alam and Lawrence (1994) but not one involving the influence of the sector ministry[20]. On the future of budgeting in the organisation, it was quite clear from the Budgeting Manager that the impending Power Sector Restructuring Programme will result in the introduction of Activity-Based Budgeting in the Authority. The technique was thought necessary because of the competition which will be generated by the deregulation. As a respondent observed:

> ...the impending power sector changes in policy will mean that the Authority must strengthen its budgeting process, in fact the entire financial management approach might even require careful reformulation. ...despite the positive perception our financiers...have about the current system, I feel that we must improve the systems if we have to be competitive... (interview no. 25).

In reaction to the problems that might result from the introduction of Activity-Based Budgeting,

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[20] see Chapter Seven for a detailed discussion of institutional compliance and VRA's accounting and financial management systems.

interviewees were quite optimistic about the level of competence of the staff to handle the technique. Some respondents argued that with the computerisation programme which started in 1990, staff will "require minimal training to implement the system" (interview no. 32). These issues are taken up further in Chapter Seven.

4.5.1.3 Forecasting, Performance Monitoring and Reporting.

While budgets are important for organisational management process, it will be naïve to assume that organisational actors will (or should) always comply with budget provisions. This is the perception strongly held by the Budget Manager at the Authority. On this a respondent remarked:

> It is always dangerous to assume that targets set in budgets will always be met... There is always the need to monitor performance to ensure that things don't get out of hand... That is exactly what you observed Mr...doing last week. Without performance monitoring problems can go unrecognised for some time... perhaps our systems have been applauded partly because of the extent to which we monitor our budgets (interview no. 24).

To ensure compliance therefore, each Department is required to monitor its performance against budgets on a quarterly basis. Through such quarterly reports variances are established and;

> The Management Accounting Manager is responsible for assessing the impact of any variances to date on the full-year Budget. This assessment must be sufficiently detailed to identify both short-term influences and long-term trends and must be reviewed by the Departmental Director.... In addition, the Director of Finance will monitor each Department's results by reference to the monthly reporting pack which will contain a comparison of actual results to the targets set in the Budget (Finance and Accounting Manual, 1995).

As part of its monitoring process, the Management Accounting Division also prepares a monthly Corporate Variance Report which includes the following:

> i) review of Business Performance, in terms of income, expenditure and volumes;
> ii) Personnel Report;
> iii) Budget review.
>
> The Monthly Corporate variance report will comprehensively and concisely highlight the key issues underlying the Authority's performance. The Statement is a formal

> document that will be reviewed at Corporate as well as Departmental level and cannot exclude matters of assumed common knowledge or items that are also subject to more frequent local reporting (Finance and Accounting Manual, 1995, p. D6).

The internal performance monitoring and reporting form the basis for the quarterly reports which are submitted to the Ghana Public Services Commission. The Commission then compares what the organisation submits to the detailed performance contract signed between the Commission and VRA and where necessary advises the Authority on any measures to be taken.

4.5.1.4 Summary of the Managerial Accounting Function and the Concern about Deficiency

The descriptions and perceptions by organisational actors of the two important aspects of the managerial accounting function at the VRA (i.e. planning and budgeting) suggest that the systems at the VRA do not live up to the description of "deficient", in a technical sense, as argued in the current literature. Not only are the planning and budgeting processes perceived as rigorous, but they are also argued to be contributing effectively to the overall management of the VRA. This clearly, does not support concerns raised in the literature (see for example Enthoven, 1977; Gujarathi and Dean, 1993) about the wide-spread lack of or rudimentary nature of managerial accounting in third world public sector organisations. The managerial accounting function is perceived as instrumental in both short term and long term financial decision making at the VRA (interview no. 24). As a senior staff member remarked:

> ...I don't agree that our systems can be described as deficient ... They are control procedures which have been carefully designed to meet the Authority's requirements... The systems are regularly reviewed and have never been undermined by staff... I don't think they are any different from those you will find in the so-called advanced countries, such as New Zealand... In fact our systems are not different from those of Ontario Hydro, for instance... (interview no. 27).

Another staff member noted:

> ... No accounting or financial management system is perfect....But I don't think VRA's systems can be described as deficient because they are well designed and constantly up-dated... (interview no. 25).

Clearly, the above discussion shows that with regards to the managerial accounting function, organisational participants hold views which are quite inconsistent with the claims in the current public sector accounting literature on developing countries. Indeed, the basic deficiency claim is unsupported.

4.5.2 The Issue of Power Pricing: Tariff Setting

The International Energy Agency[21] (1994, p. 136) identifies the issue of power pricing as one of the most important aspects of managing electricity companies. The Agency observes that although power pricing methods vary between companies, three methods are dominant in practice; historical cost recovery method, marginal cost pricing, and market pricing approach. The method of pricing adopted by an organisation, the International Energy Agency contends, has a significant effect on the nature of its overall financial management and is also implicated in the process of cost determination in the organisation (i.e. whether the organisation will emphasize historical cost or marginal cost in its cost accumulation process, is to a large extent a function of the pricing method adopted). In addition to the views of the International Energy Agency, the strong role which has been given to accounting in terms of the provision of relevant information for accurate pricing of organisational products (see Horngren et al, 1994; Johnson and Kaplan, 1987), suggests that the effectiveness of accounting systems could be reflected by the nature of the pricing system existing in the organisation. The argument here is that if an accounting system is to be judged effective, then its significance in pricing of the organisation's product should be recognised. Organisational actors had the view that price setting is an important aspect of the Authority's financial management and that the current systems are effective in providing data for pricing decisions[22]. A senior member of the Finance Department noted that:

> The systems in place allow us to provide up-to-date information for management to make pricing decisions... Although different pricing methods are used for the three categories

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[21] International Energy Agency is an autonomous body which was established in November 1974 within the framework of the Organisation for Economic Co-operation and Development (OECD) to implement an international energy program.

[22] Chapter Seven problematises this view by illustrating how negotiations underpin what is conventionally handled through a "rational" decision making process (i.e. pricing of VRA's product).

of customers, management always rely strongly on our recommendations for pricing of the Authority's product. . . . Sometimes we justify price changes through cost data, including recognition for exchange rate fluctuations, inflation and the need to meet an appropriate return on fixed assets . . . . But ...not all these are incorporated into the pricing formulas for the various categories of customers. In some cases we are limited in what we can do... (interview no. 26).

Another respondent remarked:

> Our systems are designed in such a way that we have relevant information on the general economic trend both locally and globally, and this puts us in a position to provide management with relevant recommendation for pricing of the Authority's product (interview no. 24).

However, some respondents were critical of the financial management systems with regard to how they reflect in pricing of the Authority's products. One interviewee noted:

> We have very competent staff over here. But the Authority sometimes employs the services of consultants to advise on accurate pricing methods. In that case we only provide the raw data and the consultants come out with suggestions which could have been offered by our junior staff members . . .This does not mean the system is inadequate, but it is a reflection of management's over-confidence in consultants (interview no. 27).

Similarly, a senior member of the Finance Department observed:

> ... pricing has always been a controversial issue in the financial management process of the Authority since its establishment in the early 60s . . . . and there is sufficient evidence that it will continue to be our major financial management issue because of the constraints that we have to work within (interview no. 13).

In this section a description of the various methods of pricing to the Authority's customers is provided. An interpretive construction of the VRA pricing system is further elaborated in Chapter Seven.

The Authority has three main customer groups namely; Valco. C.E. B. & Burkina Faso (or Foreign), and Local Customers. The price structure of the Authority is such that each of these groups is charged different rates. In presenting the evidence in this section, examples are drawn from the 1994[23] Corporate approved budget to illustrate the Authority's pricing system.

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[23]The 1994 Approved Corporate budget is used because it was the most current approved budget made available to the researcher at the time of data collection for this thesis.

a. Pricing to Valco. In determining the rate charged to Valco, the Authority takes into consideration the prior agreements which were signed by the Government of Ghana and Valco at the time of establishing the Authority. A respondent in the Finance Department observed that:

> ...the rate VRA charges to Valco can only be understood if you have a firm grasp of the history of the Volta River Project.... In the very early days we had no problem at all with the rate paid by Valco for power supplied to it. ...But now it is the most contentious issue in the management of VRA (interview no. 33).

The rate is normally quoted and paid in US dollars. Following extensive negotiations to change the provisions of the agreements since the early 1970s, the Authority and Valco agreed, from 1982 onwards, to determine Valco's electricity rate using the following formula.

Power Rate =[(1/3 Base Power Rate) + (2/3 Base Power Rate* LME/80)]

Where;

Base Power Rate is an average price of power for aluminium smelters in the world. As of May 1996 the Base Power Rate was 20.9 mills[24]/KWH

LME is the Average price of aluminium on the London Metal Exchange in a given period.

80 represents the estimated average price of aluminium for the next five years.

The implications of the above formula are discussed in Chapter Seven when the thesis goes behind the technical façade to 'critically' examine the negotiations which preceded the pricing formula. In the mean time, using the above formula provided power to Valco at 1.726 US Cents per KWH in 1992 and 1.700 US Cents per KWH in 1993. The contract which was signed between the Authority and Valco runs out in May 1997 and it is expected that a different formula will be negotiated with Valco[25]. Organisational actors shared their perceptions on this impending renegotiation. A discussion of these perceptions is deferred until Chapter Seven.

b. Pricing to Foreign Customers. To arrive at the rate charged to foreign customers, the

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[24] A mill is the unit for pricing electricity and the equivalent of one-tenth of a US cent. Throughout the thesis, efforts will be made to convert mills to U.S. cents or the local currency (and vice versa), where necessary, especially for comparison purposes.

[25] See Chapter Seven for a detailed discussion of the negotiations.

Authority applies the following formula:

T1 = To * [0.85 * MUV1/MUV2 *E1/E2 + 0.15 *CPI1/CPIo]

Where;

MUV1 and MUV2 are Manufacture Unit Value index for period one and two as determined by the World Bank. The Bank determines this by reference to foreign inflation rate. Specifically it takes the average of the OECD countries.

CPI1 and CPIo are the Local rate of inflation i.e. consumer price index in Ghana in the current and preceding years respectively.

E1 and E2 are the exchange rate between the US dollar and the Cedi for periods one and two. This is normally provided by the Bank of Ghana.

T1 and To refer to the tariff for the current and preceding years respectively.

Applying this formula resulted in power rates of 5.100 US cents per KWH in 1992 and 1993. It is expected that this formula will be adjusted soon after the completion of the Takoradi Thermal Project. This is necessary because of the relative high cost of generating power from thermal sources to supplement the current hydroelectric source. The proposed adjustments will reflect the fuel bill and domestic sales (i.e. opportunity costs of selling internationally) in the formula. On the issue of pricing to foreign customers a respondent in the Economics Division noted:

> By far this is the group that we have the least problem with....Since the interconnection started years ago, there has never been a major disagreement on the rates charged to foreign customers. Rates are reviewed fairly from time to time... (interview no. 27).

c. Pricing to Local Customers: The local customers are made up of E.C.G. (an autonomous state owned electricity distributor in Southern Ghana[26]), the Mines, Akotex, Aluworks, and N.E.D. (a branch of VRA responsible for electricity distribution in Northern Ghana). "Power rates to domestic customers are subject to very high political interference" (interview no. 27). The Authority is of the view that power should be charged to domestic customers according to the Long Run Marginal Cost of supply. As a staff member of the Economics Division remarked:

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[26] E.C.G. receives power from VRA at wholesale rate and then distributes to individual households and local corporations at an approved (i.e. by Government) retail rate.

> LRMC is the most rational and economic way of recovering cost of supply.... This is because it provides more than 8% returns on fixed assets... (interview no. 27)[27].

While the Government has accepted proposals by the Authority to charge domestic consumers in accordance with the LRMC of supply, it has not (fully) approved the current formula which aims at phasing in the new tariffs based on the LRMC[28]. In addition to a proposal for a system based on the LRMC of supply, the Authority also seeks to ensure that High Voltage (i.e. major industrial consumers) and to some extent Low Voltage consumers cross subsidise Residential customers. Prior to the proposal for a tariff rate based on LRMC, the Authority charged domestic consumers through the Bulk Supply Tariff basis. Under the Bulk Supply Tariff basis, the Authority is allowed to propose a rate which is subject to approval by the Government through the Ministry of Energy and Mines. Experience shows that the rates approved by the Government are always lower than what the Authority proposes. "Quite often the Government only allows power rate increases based only on the rate of inflation" (a staff of Economics Division, interview no. 26). In determining the rate for domestic customers, the Authority takes into consideration the extent to which customers can afford the power costs. Using the Bulk Tariff Supply basis, the Authority charged power to the Mines, Akotex, and Aluworks at 17.340, 19.450, and 16.330 US Cents per KWH in 1992 and 20.730, 20.070, and 19.190 US cents per KWH in 1993. The Authority also charged power to E.C.G. and N.E.D. at 3.960 and 6.350 US cents per KWH for 1992 and 1993 respectively. The implications of the above for the average Ghanaian power consumer is discussed in Chapter Eight when the role of the VRA in Ghana's socioeconomic development is reinterpreted.

4.5.3 Computerisation of Accounting and Financial Management Systems at the Authority

In their review of the history of accounting software packages, Cohn and Bellone (1997) observe

[27] 8% return on fixed assets was agreed to be the acceptable performance level signed between the World Bank and the Authority at the time of its establishment in 1961. This method of measuring performance has remained the Authority's target since it first started business in 1962.

[28] A detailed discussion of this is provided in Chapter Seven.

that the effectiveness of an organisation's accounting system is increasingly being linked with the nature of its accounting software package. Cohn and Bellone (1997) observe that this perception underscore the current competitive market for accounting software packages. Empirical investigation at VRA revealed that concerns for computerising the Authority's financial management and accounting systems date back to the late 1970s when the Authority engaged the services of "experts from Canada and the United States to help develop the Accounting Department" (interview no. 13). However, not very much could be done because of a number of factors including the gross lack of computer literate and the relative scarcity of computers at the time. By the early 1980s, the Authority had an accounting and financial management system which was partly computerised and partly manual (interview no. 13). Those aspects of the Authority's financial management systems which were computerised were the result of the recommendations of a Committee headed by the then Director of Accounting Department with consultancy services provided by Coopers and Lybrand Chartered Accountants, U.K.

By the late 1980s, the Management of the Authority "recognised the need to improve the existing manual and computerised financial systems in order to provide more efficient means of controlling and managing the business of the Authority" (Ahorlu, 1994)[29]. The response to this recognition resulted in the establishment of the Accounting Personnel Computerisation Project (APCP) , in 1987, as a sub-division of the Finance Department initially delegated with the responsibility of studying the "existing Accounting Systems of the Authority and to make recommendations for the way forward" (Ahorlu, 1994, MAC). A summary of the main weaknesses of "the old financial system" revealed by the Project Team is as follows:

> Management information was inadequate and not timely.
> Budgetary control was ineffective due to delays in processing and the budgets being held on separate files to the Actual data.
> The financial systems were not fully computerised and the large amount of manual

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[29] Cited from the Report on the Maiden Accounting Conference organised by the Authority in 1994. This Conference was aimed at educating the staff of the Finance Department on the Authority's financial management procedures. The Report was however, not page-numbered thus my inability to provide a page number in the above quotation. Subsequent references to the Report are marked, MAC denoting Maiden Accounting Conference.

processing and intervention caused considerable delays.
The reporting facilities were inadequate and there was no online access available, or facility for users to generate ad-hoc reports.
The lack of facilities had led to a prolification of PC facilities resulting in duplication of data and potential inconsistencies of use.
The lack of an overall financial systems strategy led to individual or section specific developments that were not consistent with each other and in some cases duplicated each other.
The computerised procedures were centralised in Accra with no access from the locations leading to delays as a result of delays in submission of documents.

(sic, Ahorlu, ibid, MAC).

The identification of the above weaknesses led the Project Team to recommend that "the Authority should replace the manual and existing Computerised Financial Systems with a new and up to date Systems" (Ahorlu, ibid, sic). Among the aims of the Project Team's recommendation were:

To produce accurate and timely Financial Management, Accounting and Human Resource information for Volta River Authority
To provide flexible, accurate and appropriate reporting to all levels of management within the Authority.
To absorb and accommodate organisational and business change without detracting from the effectiveness of the system.
To provide means for the effective stewardship of the Authority's assets.
To provide adequate security and control over system data to ensure its integrity, reliability and accuracy.
To allow where it is desirable and cost efficient to do so the automatic transfer of data within component parts of the system without compromising the security or control of system data.
To provide the basis for integration with other business and systems

(Ahorlu, ibid, MAC).

The recommendations of the Project Team gave rise to the current Computerised Accounting and Financial Management Systems described in the next sub-section. In addition, the section provides the perceptions of the organisational actors regarding the effectiveness of the "new system".

4.5.3.1 The Current Computerised Accounting and Financial Management Systems: Perceptions of Organisational Actors

The current computerised system is an accounting software package designed for the Authority by Computron International. The package includes the General Ledger, Accounts Payable, Accounts Receivable, Fixed Assets, Job Costing and Payroll currently used in the Finance Department. The package also includes "human resource systems" for payroll and personnel (interview no. 31). The technical description of the current systems presented to the researcher is summarised in the following quote which was read to the researcher as evidence of the technical features of the system:

> The Computron Financial System has a 36-bit alpha-numeric accounts code. The VRA is, however, utilizing 11 (eleven) digits coding system. ... The system handles multi-company data and can accommodate up to 999 companies. Data for up to 9 previous and 9 future years can be held on line at any time. Data entry is simplified by the availability of automated reversing journals for accruals in different periods of reporting, recurring journals (for instance depreciation, monthly or periodic rent and rates charges)..... The allocation module is provided to facilitate cost allocation across cost centres and operating areas on a predefined periodic basis. It has a facility for revising budgets as well as holding the original budget.... Different budget forecasts can be held on the General Ledger... The General Ledger has two standard Focas 1000 and 2000 report Generators. Focas 1000 is a flexible report written for ad hoc queries or reports on posting accounts balances. Focas 2000 is an end user report generator preparing financial statements, budgets and other financial reports (Ahorlu, MAC).

To stimulate discussions between the researcher and the staff of the APCP Division, the researcher asked whether this system was designed according to the specific requirements of the Authority or it was just one of the numerous 'off-the-shelf' software packages. The Manager of the Division, and Director of Finance indicated that the present system is an 'off-the-shelf' package which has been "customised" to meet the specific requirements of the Authority. This, the APCP Manager argues, was necessary to ensure cost efficiency. A senior member of the Finance Department noted that:

> VRA has one of the most up-to-date accounting software packages. We are among the leaders in the country whether private sector or public sector...in fact, I can say we are doing well even by international standards because our systems do not differ very much from [that of] Ontario Hydro, for example... our systems are adequate and could not be described as deficient in anyone's language (interview no. 51).

In terms of changes in the Authority's requirements (especially over time), a senior member of the Finance Department remarked:

> An agreement has been signed with Computron for updating the packages. This is done through subscription. Whenever there are local changes (in Ghana), they try to incorporate these into the package (interview no. 13).

Organisational participants had an overwhelming perception that because the system is continuously up-dated, staff members of the Finance Department are currently able to provide management with up to date information[30]. This perception is captured in the following remarks:

> Certain managerial information which could not be provided within some time limits are now readily available. Delays in report generation which was a major problem in the early days of the Authority seem to be gone forever. There are no excuses today (interview no. 13).

For instance, organisational actors recognised that prior to the implementation of the current system, they spent an enormous amount of time on variance analysis and budget preparation. With the introduction of the current systems, they are not only able to perform "what if analysis", but budget preparation and variance analysis take less time to do.

The introduction of the current systems also resulted in some problems as perceived by other organisational actors. Perhaps the most important of these problems is the lack of sufficient training for users of the system. Quite often users do not explore the full potential of the system because of lack of sufficient knowledge of the system. As one respondent noted:

> There use to be the case that we had no computers. Today our problem is not one of lack of computers, but how to maximise the utility of these machines. May be with time... (interview no. 13).

Another important problem is that, "the system recommends decentralisation, but the Authority has not been able to completely decentralise its financial system" (interview no. 31). The next sub-section looks at how the current systems enable the Authority to manage its cash and

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[30] This view was shared by most senior staff members of the other Departments when they expressed their opinions about the effectiveness of the systems at the Finance Department.

disbursements by presenting the interviews/discussions between the researcher and staff of these Divisions of the Finance Department.

4.5.4 Treasury and Disbursement: Local and Foreign Cash Management

Killick (1980)[31] identifies cash management as one of the major problems of managing state own enterprises in sub-Saharan African countries. Killick observes that this results from the existence of very high incentives for organisational actors to defraud these enterprises. With growing concerns about the proliferation of such cases in the management of state owned organisations in developing countries (see also Bhatia and Batra, 1995), it was thought necessary to investigate the cash management procedures of the Authority in order to evaluate Killick's concerns within the context of the VRA[32].

Unlike most state owned enterprises which do not have separate Units or Divisions with the sole responsibility of treasury and cash management, the VRA has always found it necessary to maintain such a division since it was established (interview no. 14). A respondent who has been with the Authority for over twenty years noted that:

> ...we have never had any problem with our cash management. The reason is simple, the existence of a well designed cash management model does not leave any incentive for ... staff members, whether senior or junior, to indulge in cash misappropriation or mismanagement (interview no. 14).

Some organisational actors pointed out that cash management is not a problem at VRA because financiers often review their policies to ensure that the Authority always seeks to maximise the use of cash resources by rigorously controlling receipts and payments. To ensure the continued support from the financiers, the existence of well designed cash management systems has become one of the major organisational policies of the VRA. To implement this policy:

The responsibility for the strategic management of the Authority's funds is vested in the

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[31] See also Killick (1978).

[32] Perhaps a recent illustration of Killick's concern is captured by the case between the Ghana Government and Dr Agyei-Marfo (former Managing Director of Ghana COCOBOD).

Director of Finance. Responsibility for operational decisions to meet the strategic investment and cash management targets is delegated to the Treasury Manager (Finance and Accounting Manual, 1995, p. H3).

Discussions with the Director of Finance, the Disbursement Manager and the Treasury Manager provided the researcher with a description of the cash management model which the Authority currently has in place. This Model and the perceptions of its effectiveness are presented in the next sub-section.

4.5.4.1 The Cash Management Model

To ensure the proper management of the Authority's cash resources, detailed procedures are provided on the management of receipts and payments, cash forecasting, and foreign currency management. These detailed procedures form the cash management model.

a. Management of Receipts and Payments

Organisational participants maintained that the main objective of receipt and payments management is to ensure optimum levels of cash in the Authority's coffers. The Director of Finance is responsible for collecting and monitoring customer debts through the Financial Accounting Manager and Area Finance Officers as appropriate. In some instances, the Director of Finance is allowed to delegate debt collection to other executives but still remains responsible for the tasks. To carry out his debt collection functions, the Director of Finance relies on a debtors listing of power sales (generated by the Financial Accounting Manager) by the close of business on the fifth working day of each month. The procedures for invoicing and collection is summarised below:

a) The VRA customers are required to settle outstanding balances within 30 days of being invoiced (or sooner if possible), unless different terms of trade have been authorised by the Chief Executive;
b. if debit notes or invoices are being raised in respect of work carried out for third parties, then the debit note/invoice must be separately identified and costed, regardless of whether this working forms part of a larger sale;
c. invoices must be prepared accurately, thereby giving no cause for dispute or re-invoicing;
d. customers must be invoiced promptly, and at least within 5 days of the supply in order to maximise the collection of debts. Officers responsible must be prepared to justify any

> delay exceeding 2 days between the supply date or date of despatch of goods and the issue of the appropriate debit notes or invoice(s). Accordingly, any attempt to delay invoicing in order to reduce the number of debit notes or invoices sent to customers is wholly unacceptable (Finance and Accounting Manual, 1995, p. H6).

On the issue of collection, the Manual adds:

> a. local power customers must pay, wherever possible by direct bank transfer. Foreign power sales customers must pay by automatic bank transfer to the appropriate foreign exchange account.
> b. remittances in respect of miscellaneous sales must, wherever possible be paid by bank transfer, cheque or salary deduction (the latter being applicable if the debt is owed by an employee of the Authority). The payments of invoices or debit notes in cash should be kept to a minimum (ibid).

Organisational actors maintained that the practical operation of these organisational policies are stringently enforced. Most respondents maintained that they always have to observe these rules because of the strong importance management accords to them. For instance one respondent observed:

> That is my job and I cannot take any risk by not complying with the policies.... It does not cost me much to follow the rules strictly, why should I risk my job (interview no. 50).

Another staff member noted:

> We have to follow the rules. No one is irreplaceable at the VRA... That is why we are seen [by outsiders] as better than most other organisations (interview no. 01).

The Director of Finance is also responsible for payment of the Authority's obligations. As a general policy, payments of the Authority's obligations are usually made by cheque. In some cases however, payments to creditors can be made by standing order or payment transfer. In such cases, the review and authorization procedures are the same as those for cheque payments. To ensure maximum control over payments, the Authority not only has specific policies on opening and closing bank accounts but also has two signatories for every cheque. While the first group of signatories is made up of the Chief Executive, Deputy Chief Executive (E&O), Deputy Chief Executive (CP&F) and the Director of Finance, the second signatories include the Deputy Chief Executive (R&S), Board Secretary, and Director for Special Duties. At least one first and one second signatory are required for any payment by cheque to be effected. On the issue of embezzlement, a senior staff member remarked:

> ...I have been working here for the past 33 years and there has never been any embezzlement case. Our signatories are trustworthy professionals who will never sacrifice their pension, benefits and reputation for fraudulent behaviour... I have myself been a signatory for a number of years and know what it is....(interview no. 55).

b. Cash Forecasting

Another important aspect of the cash management model involves cash forecasting. The Treasury Division usually forecasts the cash position both for the effective management of individual cash receipts and to enable the Authority to manage its overall cash position in accordance with its stated cash management policies. A respondent in the Treasury Division noted:

> effective cash management requires effective cash forecasting and VRA engages in detailed cash forecasting both in the short term and long-term (interview no. 14).

Two types of cash forecast are usually prepared: the weekly cash forecast and the three monthly rolling cash forecast. With the weekly cash forecast, a comparison of the actual and approved cash movements for the previous week and forecasting the flow for the current week are provided. Where necessary, unusual items in the weekly forecast must be explained and a note explaining any amount which is significantly different from previous forecast must be provided. Weekly cash forecasts are usually reviewed and signed by the Director of Finance.

In addition to the weekly cash forecast, a three monthly cash forecast is usually prepared every month (on a rolling basis). These forecasts are submitted to the Director of Finance on the first Monday of each monthly accounting period together with explanations for material variances against the previous month's projection. On the effectiveness of the cash forecast model an organisational participant noted:

> ...the cash forecast model is effective because it is designed in such a way that the weekly cash forecast are meant to ensure that cash management problems are brought to the attention of senior management without any delays... (interview no. 08).

c. Foreign Exchange Management

Foreign exchange management procedures provide the third dimension of the cash management model. The VRA has a policy of covering all "foreign currency exposures" (i.e. committed payments in specific currencies not matched by contracted receipts in the same currencies) at the point the funds are committed under a purchase agreement. No Department, Section, or Division has authority to enter into foreign exchange contracts. A senior member of the Finance Department remarked:

> it is a serious misconduct for any staff to engage in any form of contract whether foreign or local without appropriate authorization....However, in the case of foreign exchange transactions, Departments, Divisions and Sections are simply not permitted to enter into any contracts, involving receipts, payments or any commitments whether now or in the future, with any institution or customer (interview no. 07).

Authority for foreign exchange contracts is vested in the Chief Executive through the Deputy Chief Executive (CP&F) and the Director of Finance. The Treasury Division prepares a six month (rolling) forecast of the Authority's foreign currency exposure each month and submits this to the Chief Executive, Deputy Chief Executive (CP&F) and Director of Finance.

An estimate of foreign currency cash receipts based on outstanding power sales balances, forecasts power sales, forecast exchange rates or any other factors likely to affect the receipt of foreign exchange is prepared on a monthly basis. In addition, all payments in foreign currency are arranged by the Treasury Manager and authorised by the Chief Executive.

4.5.4.2 Follow-up Discussions on Treasury and Disbursements

The researcher started the discussion in this area by seeking the views of organisational actors on the practical effectiveness of the cash management model. Organisational actors perceived the cash management model as a very effective tool in the entire management of the Authority. To buttress their views, organisational actors provided examples of how the systems have worked over the years. For instance, it was noted that:

> As far as the VRA is concerned, there has never been a problem of cash embezzlement... Not even in the early 1980s when some public sector organisations were said to have "ghost names" on payrolls. The system does not leave room for such behaviours

(interview no. 14).

Similarly, another supervisory staff member remarked:

> I have been working here for more than twenty years and I can't recall any incident of cash mismanagement or embezzlement (interview no. 08).

Since most organisational actors were so optimistic about the effectiveness of the cash management systems, the researcher asked whether it was not possible for embezzlements or mismanagement to go unnoticed for a long time. In response to this a senior staff member noted:

> Never, it is not possible at the VRA. With the systems we have here, never can such a practice go undetected... The controls are solid... (interview no. 14).

Asked whether the cash management model could be viewed as a perfect management tool. The staff member observed:

> I am not suggesting that it is perfect. It makes it difficult for mismanagement and embezzlements to go undetected. It nevertheless has its problems. For instance, E.C.G. is currently owing the Authority huge sums of money. We are unable to recover this from them at the moment but we still have to supply them with power because of circumstances beyond our control (interview no. 14).

What are these circumstances?

> Obviously these have to do with political reasons. As you are aware, E.C.G. distributes power in the South. The Government will not allow us to deny E.C.G. power on the grounds that they have failed to honour their credit obligations. This is a major limitation of the system (interview no. 14).

4.5.4.3 Summary of Tariff Setting, Computerisation, Cash Management and the Concern about Deficiency.

The discussion of these accounting and financial management issues have revealed that the VRA does not only have well designed systems for price setting and cash management, but also the extent of computerisation of the Authority's systems could not be described as inadequate. Organisational actors had an overwhelmingly positive perception of these issues and disagree that they could be described as deficient. While there were some problems, especially with computerisation in the past, the Authority's financial control procedures are viewed as generally effective as tools for management decision making and also do not leave any incentives for fraudulent behaviour by organisational actors. For example, the general concern about wide-spread misappropriation of funds in public sector organisations in developing countries (see for example Killick, 1980) was largely dismissed in the case of the VRA. This, organisational actors argued, was because of the existence of an effective cash management model. Similar positive perceptions were held about the processes involved in price setting for the Authority's various categories of customers. Thus the concern about wide-spread deficiency in public sector accounting and financial management in developing countries could not be supported in the context of the VRA.

4.5.5 Financial Reporting at the VRA

Arguably, an important part of an organisation's accounting and financial management systems is the financial reporting practices. Likierman (1992, p. 10) observes that in the public sector financial reporting is a key element of the accountability requirements of these organisations. In this section, a discussion with the staff responsible for VRA's financial reporting is presented. The section not only reviews the principle Accounting Policies of the Authority but also presents the perspectives of organisational actors on the effectiveness of these policies. In presenting these policies the section reviews the Authority's basis of accounting, its treatment of shares in subsidiaries, agency services, foreign currencies, fixed assets and depreciation, Government grants, stocks and debtors, and staff end of service benefits.

a. Basis of Accounting

The accounts of the Authority and N.E.D. are usually prepared under the historical costs convention as modified by revaluation of fixed assets. Since N.E.D. was formed in 1987 to takeover the functions of E.C.G. in the Northern sector of the country, the Authority's accounts have always included the operations of N.E.D. It has been the Authority's policy since January 1992 to grant a subsidy to N.E.D. amounting to the total cost of diesel (off-grid) generation inclusive of depreciation charges on the diesel plants in the N.E.D. area. Even though such generation costs are reflected in N.E.D. operating expenses to be covered by subsidy, they are on consolidation chargeable to the Authority's overall Generation expenses and depreciation. On the rationale for the use of historical cost, a senior member of the Financial Accounting Division noted:

> Generally, historical cost is preferred because any attempt to employ current cost accounting for instance, will mean that the Authority will incur so much expenditure every year to reflect the effects of inflation in the accounts...I don't think that will be a cost effective way of presenting the Authority's financial reports... In addition, our financiers are happy with historical cost as modified by five-yearly revaluation of fixed assets (interview no. 17).

b. Shares in Subsidiaries

As pointed out in Chapter One, the Authority holds on behalf of the Government of Ghana all equity share capital in the Volta Lake Transport Company (VLTC). The shares in this company are recorded at their original cost, less the capital contribution made by the Ghana Government to the Authority for purchase of these shares. Since the Ghana Government has contributed fully to the value of these shares, their value which is nil, is not reflected in the Authority's balance sheet. The Authority also wholly owns shares in Kpong Farms Ltd. and Akosombo Hotel Ltd (*supra*). In presenting its financial statements those subsidiaries whose businesses are so different from the Authority's and therefore cannot reasonably be treated as single undertaking, are excluded from the Authority's accounts. On consolidations, a staff member remarked:

> Since our subsidiaries have operations which differ significantly from the Authority's principal operations, we do not include them in the consolidated accounts of the Authority (interview no. 17).

c. Agency Services

Since its establishment, the Authority performs certain agency services including resettlement, lake research and transportation for and on behalf of the Ghana Government for which grants and loans are received from the Government and Kreditantstalt Fur Wideraubau (KFW). The transactions in respect of these services are not consolidated in the Authority's accounts. A senior staff member argued that:

> these are not included because... they are not part of the Authority's principal operations, as with the case of some of the Authority's subsidiaries... (interview no. 16).

d. Foreign Currencies

Foreign currencies form a significant proportion of the Authority's earnings. The Authority has a policy of converting assets and liabilities in foreign currencies into their equivalent cedi amounts (local currency) at the rates of exchange ruling on the balance sheet date. A respondent noted that:

> the existence of an effective cash management model at the Authority makes this a simple task (interview no. 16).

Exchange differences arising from the conversion of long term loans in foreign currencies are dealt with as follows:

i) Exchange differences arising on conversion of long term loans used to finance assets which are not commissioned at balance sheet date are charged to the relevant capital work in progress account.

ii) Exchange differences arising on the conversion of long term loans used to finance assets that have been commissioned at the balance sheet date are charged to an "Exchange Fluctuation Debt Account" which is amortised over the remaining period of repayment of the loans to which they relate.

e. Fixed Assets and Depreciation

The gross book value of all fixed assets including additions during the year, are stated at current replacement costs. Depreciation is calculated on straight line basis at rates estimated to write off the gross value of fixed assets over their expected lives. The principal annual rates are:

	%	No. of years
Dam, powerhouse and civil works	1.0	100
Transmission network	3.0	33
Akosombo/Akuse townships	2.5	40
Buildings	2.5	40
Hydro Generating plant and machinery	2.2	45
Aviation and Marine Equipment	12.5	8
Motor Vehicles	25.0	4
Miscellaneous plant, equipment and furniture	12.5	8

Meters/Consumer Connections	10.0	10
Diesel Generating plant and machinery	6.7	15
Distribution Network	4.0	25
Computer Equipment	20.0	5

Following a 1994 recommendation of Coopers and Lybrand, Chartered Accountants, the Authority now has a policy of amortising building over 49 years or the period of lease whichever is early. No depreciation is charged on assets fully depreciated but which are still in use. The Authority does not also charge depreciation in the year of acquisition or of commissioning of capital work-in-progress. Only assets which are retired as total units are deleted from the asset account. While cost of replacement of unidentifiable units are charged against revenue, surplus on fixed assets revaluation are deemed realised and therefore transferred to a revaluation reserve account. On the rationale for their depreciation methods, a senior staff member remarked:

> the straight line basis is better not just because it is simple but we do not have assets which make its use unreasonable....The estimated life span of the dam was determined in the 1960s and this is always reviewed to ensure its accuracy (interview no. 17).

f. Government Grants

When capital grants are made by the Government, such grants are used to reduce the costs of the acquisition of fixed assets by the amount of the grant. On the other hand those grants which relate to revenue expenditure are credited to the revenue account by reducing the revenue expenditure concerned.

g. Stocks

Valuation of stock is done on a consistent basis at the lower of cost and net realisable value. The Authority defines costs as all direct expenditure incurred in bringing the goods to their current state. Purchase of freehold furniture not yet brought into use and awaiting capitalization is included in stock. Valuation of stock is carried out by the Materials Management Department. A senior staff member of the Department noted:

> ...Although we frequently value our stocks on the basis of the lower of cost and net realisable value, we also take into consideration the nature of the item... sometimes other

bases are used when deemed appropriate.... (interview no. 33).

He further noted that:

> we provide the Financial Accounting Division with our valuations which they often verify for accuracy and consistency....Where there is a change in valuation method, we need to sufficiently justify this... (interview no. 33).

h. Debtors

The authority shows Debtors at book value less a general provision for debts which are expected to be irrecoverable. Specific debts which are known to be irrecoverable are fully provided for. A staff member noted on debtors that:

> we do not easily write off major debts. For instance, ECG is owing the Authority a lot of money for over so many years now, but this may never be written off partly because of the amount involved (interview no. 16).

i. Staff End of service Benefits and Pension Plan

VRA has liabilities in the form of retirement and death benefits for its employees. These liabilities are maintained in the form of pensions, gratuities and provident fund. The liabilities emanating from end of service benefits are usually fully provided for "in Revenue account as a result of Ghana Government directive freezing such benefits as at 31 December 1990" (VRA 30th Annual Report and Accounts, 1991, p. 64).

4.5.5.1 Follow-up Discussions on Financial Reporting

The discussion of the Authority's financial reporting practices did not involve a line by line analysis of the items disclosed in the financial statements. Rather the attention was directed at understanding the views of the staff in the Financial Accounting Division on the current accounting policies of the Authority and how these compare with other organisations in Ghana and overseas. The Manager of the Division argued that most of the policies the Authority pursues have been applauded by the various users of their financial statements[33]. Although the World Bank, Valco and the Ministry of Energy and Mines seem to be the most interested parties

[33] See the penultimate section of this chapter for the views of the World Bank on the Authority's accounting systems.

in the Authority's financial statements[34], these statements are made readily available for public scrutiny by displaying them in the Authority's library.

In terms of Accounting Standards which guide the preparation of the Authority's financial statements, a senior staff member of Financial Accounting Division noted:

> We currently seek and employ best practices in the world. Since Ghana has no standards of its own at the moment, we rely on the international accounting standards.... But there are problems in the wholesale adoption of these standards. Despite these problems, the World Bank and other international financial institutions are quite happy with our Annual Reports (interview no. 16).

This view was shared by another senior staff member of the Finance Department when he remarked:

> VRA is one of the best organisations in the country in terms of its financial reporting practices. We keep our eyes and ears wide opened on the international scene for best practices (interview no. 13).

Organisational participants maintained that the financial reports have always been timely especially with the computerisation of the Department in the early 1990s. The main problem before computerisation was the lack of integration of the system which was partly responsible for delays in financial reporting.

> Although this problem of integration has been some how dealt with, there is still a need for further integration of the current system. For instance some communication facilities need to be installed at Akuse/Akosombo (interview no. 16) .

Another important problem that the current systems face is the need to train staff on how to use the computerised system for generating financial statements. "Some of those who were trained by the Authority have left, but management is not recognising this" (interview no. 16).

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[34] Because they have direct financial interests in the Authority's operations.

4.5.6.0 The Area Finance Offices: Decentralisation of Accounting and Financial Management Systems

Baiman and Rajan (1995) observe that the extent of (de)centralisation of the managerial accounting function could play an enabling or constraining role towards the effectiveness of the accounting systems of an organisation with decentralised operations. Miah and Mia (1996) also share similar views when they investigate decentralisation and accounting control and performance in New Zealand government organisations. As indicated in Chapter One, the Authority has branches in Akosombo, Akuse, Tema, and Tamale. Taking the concerns of Baiman and Rajan (1995) and Miah and Mia (1996) into consideration this section presents discussions with the finance staff in these Area Offices regarding the extent of decentralisation and their perceptions of the Authority's accounting and financial management systems in that context. Although most interviewees in the Area Offices were of the view that VRA, as a whole, had a "sound"[35] financial management system, they were also critical about the state of accounting and finance in the Area Offices in particular. One of the bases for such criticism was the lack of trained accounting staff in the Area Offices. A respondent in an Area Office noted:

> the Authority has qualified staff, but they are all based at the Head Office. We do not have qualified support staff at the Area Finance Offices... The Authority is only beginning to address this problem (interview no. 03).

In addition, some Area Finance Managers could not reconcile the partial autonomy granted to them and the strong Head Office control practices. This was perceived as a limitation which leads to delays in reporting and decision making at the Area Offices. Another important problem identified by most Area Finance Office staff was the restrictive nature of the "authorization limits"[36] which Head Office is reluctant to review upwards. As one Area Finance Manager observed:

> The only qualified management letter (warning) we have ever had from our internal

[35] Although this view was the most dominant among staff of the Area Offices, there were also some organisational participants whose perceptions differed from the dominant view.

[36] The limit in terms of the monetary value of a transactions that Directors and Managers at the Area offices could authorise.

auditors was in connection with exceeding authority limits. This cannot be avoided because of the rapid rate of inflation and the people at Head Office do not seem to understand this (interview no. 19).

In relation to the above another Area Finance Office staff member remarked:

> Those who say VRA has no deficient systems are relying on the nature of the system on paper, and may be at the Head Office.... There are internal deficiencies which do not depend upon the Manuals, rules, policies etc.... At the operational level (especially the Area Offices) the system is more a problem though it looks very good on paper. These deficiencies are not major but equally important and need to be addressed (interview no. 03).

One interviewee argued that as far as the World Bank was concerned VRA was performing extremely well and the systems were acceptable to them. This, he argues, was because of the use of consultants to design these systems.

> ... but I think there is a possibility of intellectual manipulation.... People hide behind consultants to do their own things[37]. In general, the systems are quite good but personalities become the main problem. If you have a so-called "good system" without the right person in the right position, I will not describe such a system as good (interview no. 15).

The above view was shared by another employee in a different Area Office when he remarked:

> The financial management system is okay. Human factor is the problem. The system is not inadequate (interview no. 04).

The commonalities in the concerns of Area Finance staff members led the researcher to conclude[38] that the financial management systems in those Areas were not as 'developed' as those in the Head Office. Follow-up interviews with the Director of Finance and other senior organisational members at the Head Office on authorization limits revealed that the Authority is currently reviewing the authorization limits of Area Directors and Managers. This is:

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[37] He was referring to top management pursuing objectives which conform to their personal interests even where such objectives may not be favourable to other staff (most likely the 'junior' ones).

[38] It should be noted that some of the evidence was observed by the researcher himself and thus help shape the conclusion about the nature of the systems in the Area Offices.

> unfortunately a slow process because of the need to study the trends in the economy. This is a problem that we have recognised (interview no. 07).

The actions which have been taken by Senior Management to address this problem were further discussed with the Acting Director of Internal Audit Department and his staff. These discussions together with the description and perceptions of the effectiveness of the audit function at the VRA are presented in the next sub-section.

4.5.7.0 The Audit Function

The deficiency or otherwise of an organisation's accounting systems could also be reflected by the (non)existence and nature of the audit function in the organisation. Indeed, one of the major issues which have been raised to support the deficiency claim is the absence of independent audit staff in most public sector organisations in developing countries (see Most, 1991). Since its establishment in the early 1960s, the VRA has always had their accounts audited annually by various external auditors appointed from time to time. The Authority has also maintained an Internal Audit Department with the overall objective of assisting:

> the Chief Executive by giving him (sic) assurance on the adequacy and effectiveness of internal control throughout the Volta River Authority (VRA) and it's subsidiary companies (Internal Audit Manual, 1991, p. 02).

The Internal Audit Department is charged with the following responsibilities:

> a. assess the adequacy of internal controls for the financial systems operated by the VRA, covering the design of the control procedures and their operation in practice;
> b. carry out testing to substantiate the values for major account balances and classes of transaction appearing in the accounting records;
> c. review the controls operating at computer installations where processing for financial systems is carried out;
> d. carry out special assignments and investigations as directed by the Chief Executive;
> e. advise on the control requirements for new financial systems and the means by which these may best be satisfied;
> f. report findings from assignments carried out and make recommendations for improvements;
> g. liaise with the external auditors in order to ensure co-ordination and avoid duplication of work; and
> h. hire suitable staff and develop their skills so that they can contribute effectively to the

success of VRA, whether they remain within Internal Audit or move to other Departments.

An important factor that makes the Internal Audit Department "well regarded not only by the External Auditors [i.e. Coopers & Lybrand, and Deloitte & Touche] but also other Departments within the VRA is the detailed and careful planning which the Internal Audit Department engages in " (interview no. 22). The Department usually prepares a Three Year Audit Plan on a rolling basis together with annual audit plans detailing the current audits during the current accounting period. In preparing the Three Year Audit Plan, the Department pays particular attention to the strategic direction of the Authority as spelt out in the long term Corporate Planning Process. This ensures that the activities of the Department are not only focussed but also integrated into the organisational management process (interview no. 23). The Department also makes the detailed audit plans available to the external auditors for their "independent" review. To ensure that the audit planning process is not only comprehensive but also produces "realistic"outcomes:

> a meeting is held with the external auditors each year to discuss the draft Three Year Audit Plan and Annual Plan. The comments of the external auditor are considered and, if appropriate, amendments made to the plans before they are finalised (Internal Audit Manual, 1991, p. 03).

In pursuing their functions, the Department directs its attention "primarily towards the underlying systems rather than the end products such as financial statements" (Internal Audit Manual, 1991, p. 11). Since the accounting systems form the basis for the preparation of periodic financial statements and other information required to control the operations of the Authority, the Department always insists on the need for the existence of an adequate accounting system. Accordingly, the Internal Audit Manual (1991, p. 12) provides details of what the Department considers as an effective or adequate accounting system when it states:

> An accounting system should be designed in the light of factors such as the nature of the business and whether it is subject to *the requirements of any regulatory bodies.* It should take into account any particular risks attaching to the account balances and transactions. An effective accounting system should:
>
> a. ensure that all valid and only valid transactions are identified and recorded on a timely basis;
> b. ensure that details of transactions recorded are accurate;

c. record the transactions at the right value in the proper accounting period;
d. describe the transaction in sufficient detail to facilitate its proper presentation and related disclosure in the financial statements; and
e. limit the opportunity for fraud and other irregularities.

The above quote arguably, provides the Authority's notion of adequacy of accounting and financial management systems. Clearly this view presents the technical understanding of accounting and does not problematise the socio-cultural aspects of this human-made craft. For instance, the Manual mentions "regulatory bodies" but takes it for granted that these bodies do not have contested interests.

With the growing importance of information technology in the management of the Authority, the Internal Audit Department has designed Information Technology Controls (IT controls) "to ensure that the accounting and control procedures carried out by the computer programs (programmed procedures) are appropriately designed, implemented, maintained and operated and that only authorised changes are made to programs and data" (Internal Audit Manual, 1991, p. 34).

4.5.7.1 Follow-up Discussion of Audit Function

Since the Internal Audit Department is responsible for evaluating the effectiveness and adequacy of the accounting and financial management systems at the VRA, the researcher had separate discussions with the Acting Director and his staff and the immediate past Director of the Department to seek their views on the effectiveness of the Authority's accounting systems. A major part of the discussion centred around the independence of audit staff since the literature on public sector accounting and financial management in developing countries (specifically Most, 1991) raises doubts about the existence of independent auditors in developing countries[39]. In reaction to the issue of independence, a senior staff member of Internal Audit Department remarked:

> I find the high degree of independence to be the main strength of our Department. And this cascades to the entire organisation. Perhaps things would have been different if

[39] see Chapter Two.

internal audit staff had no independence.... Both on paper and in practice, I report directly to the Chief Executive. This makes the Department very important in the eyes of VRA employees and our external auditors (interview no. 22).

Internal audit in the VRA is not perceived as a ritual but as an important and integral part of external audits (interview no. 23; see Most, 1991, for a claim which is a clear contradiction of the above). Therefore, Departmental Directors and their subordinates are very conscious about how internal audit staff might interpret their actions.

Although the staff of the Internal Audit Department had a common view that the Authority's systems for tracking financial resources were strong, they:

> ...do not over-rely on the systems because they are operated by humans and it will be naïve to assume errors, omissions, fraudulent behaviour, and other irregularities would be completely absent. The strength of the system only serves as a deterrent... (interview no. 23).

The concerns which were raised by some Area Finance Managers and Directors regarding the need for a review of their authority limits was cited by the researcher as a weakness of the systems in a discussion with the Director of Internal Audit. The Director recognised that this was a major problem in the Area Offices and produced some evidence in a Memorandum (dated 11 April 1995) to the Director of N.E.D. (copied to the Chief Executive). The Memorandum contained details of an audit which had been conducted at the Northern Electricity Department and the weaknesses or irregularities noted. A major concern was that:

> several transactions have been approved which exceed the Director's (N.E.D.) approval limits. We also noted the employment of *the usual method of circumventing this control measure* which is the breaking-down of a transaction into amounts which fall within the approval limits of the authorising officer. The Director N.E.D. acknowledged this anomaly but drew our attention to the fact that the existing approval limits were established as far back as 1992 and did not reflect current economic value. He added that the alternative of having to wait for approval from Head Office, which may take a considerable time, may not be expedient. We share his view. This underlies further, as we have indicated before, the need to review the General Financial Approval Limits for it to reflect current economic realities; to make this internal control measure more meaningful (Memo from Ag. Director of Internal Audit, 11 April, 1995, emphasis added).

The researcher found it interesting to see that part of the Director's Memo which read "the employment of the usual way of circumventing this control measure" and asked for further clarification on this. Indeed the researcher had interpreted this as implying that circumventing the approval limits was a norm in the Authority. On the contrary, a senior staff member of the Internal Audit Department clarified that the Memo was only making reference to what textbook material provides. To further clarify this position, he argued that the Authority has always (except for this occasion) kept with time in reviewing approval limits. He also maintained that there was no problem with the approval limits at the time they were set in 1992, but that "inflation has eroded the values of the local currency and this is the main issue to tackle now" (interview no. 23).

The internal Audit staff members also cited the fact that no qualified auditors' reports has ever been issued by their well reputed multinational auditors (i.e. Coopers & Lybrand, and Deloitte & Touche) since the establishment of the organisation as a major factor that buttresses their overwhelming positive perception of the Authority's financial management systems. Another strong view was that the Authority has always tried to "ensure that control measures are not only effective on paper but also serve as deterrents for fraud in practice" (interview no. 23). This partly explains the use of consultants in designing the Internal Audit Manual[40].

4.5.7.2 Summary of Financial Reporting, Decentralisation of the Finance Function, Audit at VRA and the Concern about Deficiency

While organisational actors maintained that the Authority had adequate financial reporting policies and an effective internal audit system, most respondents were critical of the extent of decentralisation of the finance function. Of particular importance to organisational actors is the need to review the authority limits of Area Managers and Directors and the lack of qualified accounting staff in the Area Offices. Despite these two weaknesses identified, evidence drawn from organisational actors did not support the view that public sector organisations in developing countries have deficient accounting and financial management systems. In particular, some

[40] The current Manual was designed by a joint effort of Coopers & Lybrand, and Deloitte & Touche. Staff of the Department are of the view that this Manual has the potential of standing the test of time.

organisational actors argued that the systems were not inadequate but that the problems were "more of personality" issues. These personality issues, some maintained, concerned such routine organisational problems as promotion.

4.6.0 The Deficiency Notion: A Loose Generalisation?

The descriptions of the technical accounting and financial management procedures which were provided to the researcher together with what he observed as an outsider (as presented in the foregoing exposition), seem to suggest that the notion that developing countries generally have deficient accounting and financial management systems in their public sector does not hold water in the case of the VRA. An important issue which was noted in arriving at this conclusion was the fact that the Authority has not only spelt out, quite clearly, what its notion of effective and adequate accounting system should be but also constantly strived to ensure that their system approximates this. As a respondent remarked:

> . . . we have our view of what an effective system of accounting and financial management should be... You will find this in the internal audit manual . . . . It is always our aim to strive to achieve this... You may have your own view about it, but that is our view... Yes, it has never been questioned by any of them [financiers]... No one will like to extend a loan to you if your systems are not strong enough to ensure the proper use of their funds . . . (interview no. 02).

The rejection of the basic deficiency claim is captured partly by the overwhelming positive perception which organisational actors have of the Authority's accounting and financial management systems and partly by the documentary evidence which was produced in support of such views. As a respondent noted:

> The systems at the VRA cannot be described as deficient because they do not allow fraudulent behaviour, they provide timely information for managerial decision making, they are constantly reviewed for appropriate changes, etc . . . . (interview no. 17).

Another respondent remarked:

> Deficient? 1 will not describe the systems as deficient... No, no system is perfect, but I certainly will not describe VRA's financial management systems as deficient. VRA's systems are regularly reviewed [to ensure] their effectiveness (interview no. 24).

A respondent who was critical of the systems at the Area Offices noted:

> ... the systems are adequate in the sense that they are very difficult to undermine... Both at the Head Office and ... Area Offices, there has never been any case of misappropriation or embezzlement... yes, it is true that some public sector organisations had this problem but....these organisations do not have any contracts with the World Bank, for example. The World Bank and other financiers of VRA have always insisted on the adequacy of our systems (interview no. 03).

A similar remark was made by another respondent:

> ..it is common sense, even the local Banks do not lend to organisations with weak or deficient accounting and financial management systems.... How will the World Bank continue to lend to VRA if our systems were deficient (interview no. 18).

The strength of the accounting and financial management systems also reflects in the extent to which the Authority engages the services of independent consultants on major organisational accounting and financial management issues. For instance, there was evidence that the Authority constantly revalues its assets to reflect any significant rehabilitation and expansion work that is undertaken[41]. A respondent noted:

> ..I will give you an example, the revaluation that we carry out every five years is a requirement of the World Bank to ensure that the return on investment agreed at the time VRA was established, does not become meaningless because of inflation.... It also recommends this revaluation to be carried out by independent consultants...So there are checks which the Bank has ensured that the Authority should put in place.... The systems can only become deficient if VRA stops dealing with the international financial institutions (interview no. 25).

Three of the most important of these revaluations were carried out in 1981 and 1986 by Coopers & Lybrand, and Preece Cardew & Rider, and in 1991 by Coopers & Lybrand, Deloitte & Touche and Ewbank Preece Limited.

The accounting and financial management systems of the Authority have also been applauded

[41] This is a very important example because, as indicated earlier, the performance of the Authority is measured by reference to the Returns On Fixed Assets (ROFA). The use of ROFA as a performance measure was part of the agreement signed with the financiers (the World Bank in particular) during the establishment of the Authority.

by the World Bank which "has been closely associated with Ghana's power sector for almost 30 years" (World Bank Official Report No. 8207-GH, 1990, p. 17). In its evaluation of the Authority's accounting and financial management systems, the World Bank noted that:

> VRA's accounting and budgeting systems are generally satisfactory and provide timely and reliable financial information. *It has an independent internal auditing department* which forms part of its system of internal control..... Improved financial systems and reporting are expected following the full computerisation of VRA's accounts, and other improvements are expected as a results of the full integration of financial management.... Each year its fixed assets are revalued, using a satisfactory indexation formula.... Present auditing arrangements are satisfactory. VRA's accounts and auditors' reports are submitted within 6 month period agreed with IDA under the ongoing Northern Grid Project. VRA's auditor's (Coopers and Lybrand, Accra) have never had occasion to qualify VRA's accounts (World Bank Official Report No. 8207-GH, 1990, p. 11, emphasis added).

The above passage clearly summarises the World Bank's perception of the Authority's financial management system. This perception is quite inconsistent with the extant literature and further provides grounds for one to problematise (or question the authenticity of) the claim that public sector organisations in third world countries have "deficient" accounting and financial management systems. An important point to note in the above quote is the fact that the Bank, like organisational actors, does not question the independence of the internal audit staff at all. This, as indicated earlier, is highly inconsistent with conclusions drawn in the third world public sector accounting literature (see Most, 1989). These contradictions therefore call for further[42] interpretation(s) of the views expressed in the literature.

6.7.0 Linkage with Chapters Seven and Eight

> M "And do you know what this is that you see?"...
> S "Is this an organisation, perhaps?" ...
> M "That is good, you recall our last lesson. You are partially right. Part of what you see is an organisation".
> S "Well I really only meant that which lies within the fence"
> M "Yes I know you did, but again, only part of that is the organisation ... And indeed part

[42] i.e. Going beyond the preliminary interpretation in chapter two which was centred around development economics theories.

of the other is also the organisation" (Hines, 1988, p. 251).

In the above dialogue, Hines (1988) is suggesting that to gain a deeper understanding of what constitutes organisational reality there is a need to transcend the boundaries of our immediate environment (i.e. try to uncover that which is not made visible). The overwhelming positive perception of organisational actors regarding the Authority's accounting and financial management systems led the researcher to conclude that the notion that third world countries have deficient public sector accounting and financial management systems is a loose generalisation, as it does not hold water in the case of the VRA. However, this preliminary conclusion was based on the technical or formal rationality from the point of view of organisational actors. But there is:

> .... a growing awareness that no organisation is just a technical system and that many organisations are not primarily technical systems (Scott, 1987, p. 507).

There is also an increasing awareness that the craft of accounting has grown to become a very powerful tool not only in organisational management process but implicated in social processes in general (see Hooper, 1992; Hooper and Pratt, 1993; Hopwood, 1987; Mathews and Perera, 1996; Tinker, 1985). In the last quarter of this century, both in the private and public sector, "accounting developments now are seen as being increasingly associated not only with the management of financial resources but also with the creation of particular patterns of visibility..." (Burchell, et al, 1980, p. 5). With the significant changes to the craft over the years, Hopwoood (1987, p. 209; see also Burchell et al, 1980) contends that "the need for an alternative view of accounting in action is now a very real one". Arguably, such an alternative view should transcend the boundaries of the technical facade presented in this chapter. As Miller (1994, p. 4) maintains; "the technical practice of accounting is intrinsically and irredeemably social (see Velayutham and Perera, 1996)..

This view is shared by Burchell, et al, (1980, p. 6) when they argue:

> ... accounting has gained its current organisational and social significance. No longer seen as a mere assembly of calculative routines, it now functions as a cohesive and influential mechanism for economic and social management.

The above views suggest that accounting can no longer be perceived solely as a technical calculative practice, but as a practice which is interwoven in socio-political aspects of organisational functioning. Some commentators (e.g. Hines, 1988b, p. 80) represent accounting practice and accounting knowledge as "the residual of political process". Such a view is consistent with Hopper and Armstrong[43] (1991) who "deny that management accounting is a neutral tool serving the general interest of efficiency" and "emphasize its role in legitimising partisan interests, in contributing to the control and domination of labour, and reinforcing the dominant mode of production, i.e. capitalists production, albeit in a contested terrain" (cf. Covaleski et al, 1996, p. 18; see also Tinker, 1991). Perhaps the need to problematise the technical view of accounting presented in this chapter is captured by Burchell et al (1980, p. 13) in the following illuminating passage:

> Although we still know all too little about how accounting systems function in practice, the studies that are available do enable us to question the descriptive accuracy of many functional imperatives that are claimed on behalf of both financial and management accounting systems. Whilst they may be introduced in the name of particular conceptions of social and organisational efficiency, rationality and relevance, in practice accounting systems function in a diversity of ways, intertwined with institutional political processes and the operation of other forms of organizational calculative practice.... At the very least research suggests that in laying down the pretensions of the accounting craft we have uncritically adopted a rather particular set of views of human, organizational and social rationality and the relationship between accounting, decision making and organizational action. While such presumptions might have legitimized the accounting mission, ... their relationship to the realities of organizational and social life is at best questionable[44].

That organisational actors provided a technical perspective of the Authority's accounting and financial management systems suggested that they had taken for granted the contention that 'accounting' is a socio-technical human artefact. Therefore to provide a further and deeper understanding of the Authority's accounting and financial management systems, this thesis agrees with Hines that (1988a, p. 257):

> ... by taking for granted those things which others take for granted, we fail to understand

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[43] Who appreciate a view of accounting from a labour process theoretical perspective.

[44] This argument is supported by Miller (1994, p. 30) who also observes that "the study of accounting as a social and institutional practice is only in its early stages".

how those things arise, and how they are sustained, through being taken for granted and thereby forming the basis for thought and action. By taking for granted, and rigorously studying things as they are one merely builds on lay conceptions, becoming an expert of descriptions and a collector of facts. But too close an attention to facts leaves unquestioned how the facts arise - leaves us bereft of deep explanation.

Drawing from an institutional perspective, Ansari and Euske (1987) also maintain that public sector organisations use accounting and accounting information to document institutional compliance. From this perspective, the technical procedures for the management of financial resources at VRA would be represented as tools designed to seek "external legitimation or masking underlying sociopolitical reality" (Covaleski, Dirsmith and Samuel, 1996, p. 11). This argument derives from the core position of institutional theory that organisations constantly seek survival through conformity to acceptable social and political expectations (see Chapter Five). In the context of the VRA therefore, Covaleski et al (1996, p. 11) would argue that the formal structure, policies and procedures which were narrated to the researcher (and which he also observed) during empirical evidence collection, demonstrate a conformity to institutional rules, thereby legitimizing the Authority's operations and assisting it to gain society's continued support. In addition to the illuminating issues by Hines (1988a), Scott (1987), and Burchell et al, (1980), the institutional perspective of Covaleski et al (1996) suggest grounds for the researcher to go beyond the technical procedures provided by organisational actors to gain a deeper understanding of how these procedures arise. Further grounds for problematising the "technical façade" is provided by Hofstede (1985, p. 4) when he observes that:

> accounting systems in organisations are best understood as uncertainty reducing rituals, fulfilling a cultural need for uncertainty, simplicity and truth in a confusing world, regardless of whether this truth has any objective base.

In an earlier study, Hofstede (1981) noted that in public sector organisations where there are multiple objectives and a diversity of interest groups, financial control procedures serve a ritualistic purpose more than anything else. He noted that in such an environment:

> ...the logical process for control is political control i.e. it is dependent on power structures and negotiation processes which recognise the need to address conflicting values and the distribution of scarce resources (cited in Lapsley, 1992, p. 45).

At the empirical level, those perceptions of organisational actors which were critical of the Authority's financial management procedures (i.e. those which made reference to the World Bank, Ontario Hydro and other international financial institutions as vehicles behind the Authority's financial systems) provide additional grounds for problematising the simplistic technical, formal, or official view presented by the organisational actors. Therefore to enable a further assessment of the deficiency or otherwise of VRA's financial management and accounting systems, the remainder of the thesis provides an appreciation of the socio-historical and other dimensions of accounting's functioning at the VRA. This calls for not only a detailed explication of the social theoretical lens which guides the researcher's interpretive construction but also a discussion of the history of the VRA to provide a broader context within which the Authority's accounting and financial management systems could be further assessed. Chapters Five and Six address these two important background issues before delving into the socio-historical appreciation of VRA's accounting and financial management systems at the second level of empirical evidence analysis in Chapter Seven.

4.8.0 Chapter Summary and Conclusions

This chapter provides the first part of the empirical evidence analysis in the thesis. Its purpose has been to document the perceptions of organisational actors regarding the effectiveness of the accounting and financial management systems which form their everyday life at the VRA. The chapter argued that the perspectives of organisational actors are rich because their understandings and consequent actions constitute the organisational management processes. Indeed there are no processes independent of people's understandings of them (*supra*). Approaching the study from this perspective, the researcher established from the interviews and discussions with participants that the perceptions which they held about the organisation's accounting and financial management systems were the official, formal or technical/rational view. To distinguish these views from the interpretive accounts provided in Chapters Seven and Eight the former is referred to as the "technical façade". Drawing on the insights gained from the organisational actors (i.e. the technical façade), the chapter developed a core argument in the thesis that the perspective in the literature which seeks to associate deficiency in public sector accounting and financial management systems with developing countries hardly holds any water in the context of the VRA. To avoid the danger of naïvely rejecting the deficiency claim, the chapter calls for an investigation into how these technical procedures arise. The remainder of the thesis provide these further interpretations. The second level of empirical analysis which draws upon social theory and the history of the organisation to provide further insights into the accounting and financial management systems at the VRA is provided in Chapters Five, Six and Seven.

Chapter Five

Problematising the Technical Façade: The Negotiated Order Perspective as a Theoretical Lens

Some problems are just too complicated for rational logical solutions. They admit of insights not answers (Jerone Weistner; quoted in Lang, 1963).

...In terms of the most important financial management issue, negotiation is the key word... this is because of the constraints we have to work within... (senior staff member, interview no. 02).

5.1.0 Introduction

Chapter Four provided a discussion of VRA's accounting and financial management systems from a perspective which represents accounting as a technical calculative practice. While this perspective did not provide any empirical support for the claim that developing countries generally have deficient public sector accounting and financial management systems, it nonetheless pointed out the need to go beyond this perspective to uncover how these systems arise and how they are maintained and changed over time. Gaining an appreciation of how the accounting and financial management systems arise at the VRA, as noted in Chapter Three, constitutes the second level of empirical analysis which involves drawing upon social theory to further explore the nature and effectiveness of VRA's accounting and financial management systems. The objective of this chapter therefore, is to explicate the social theory which serves as a lens for the interpretive construction of VRA's accounting and financial management systems.

The central argument at the second level of analysis is that negotiations permeate the management processes of the Volta River Authority and accounting and financial management systems design, maintenance and change are interwoven in these organisational negotiation processes. To develop this argument, the thesis draws upon the theory of organisations as negotiated orders (*supra*, Strauss et al, 1963; 1964; Strauss 1978). To aid an understanding of the analysis at this level, Chapter Five explicates the "negotiated order perspective" bringing out its conceptual basis and further elaborating the rationale for its choice in the thesis. Its epistemological and ontological implications are presented through a discussion of a linkage between the perspective and the study's broad interpretive methodological stance. The implications of the perspective for empirical analysis are also discussed.

Chapter Five is structured as follows. In developing a framework to problematise the technical façade presented in Chapter Four, the discussion in this chapter begins with a working definition of negotiation and then proceeds to explicate the negotiated order perspective highlighting its fundamental arguments and how the perspective could be mobilised to theorise public sector organisations such as the VRA. After linking the perspective to the interpretive methodological orientation of this thesis a discussion of how the negotiated order perspective can enrich our understanding of accounting and financial management systems design, maintenance and change processes is then provided. Before concluding, Chapter Five elaborates upon the contributions which the negotiated order would make to accounting research through a discussion of the rationale for drawing upon the perspective to make sense of empirical evidence at the second level of analysis in this thesis.

5.2.0 Negotiation Defined

The proposition that negotiation is an important social phenomenon is extremely widespread in the literature of social sciences (Young, 1975). However, negotiation is beset by severe definitional problems[1]. Young (1975) asserts that not only are general definitions of negotiation imprecise, but also there is no consensus among scholars on the fundamental content of the concept. Strauss (1978, p. 4) observes that this lack of consensus on conceptualisation deserves serious attention because even "in the writings about organisations, long dominated by rationalistic and functionalist perspectives, there are now occasional statements that suggest the possible relevance or even crucial importance of negotiation" (citing Cummings, 1977, p. 61; Goodman and Pennings, 1977, p. 168-169). Pruitt and Carnevale (1993, p. xv) suggest that the growing interest in negotiations in the social sciences is partly explained by the fact that "negotiation presides over much of the change which occurs in human society". In this thesis, Strauss' (1978) definition of negotiation as a "possible means of getting things accomplished when parties need to deal with each other to get things done" (p. 2) is accepted because such a definition, Strauss argues, addresses the subject not only to researchers who are directly

[1] For instance, Keltner (1994, p. 68) provides eleven definitions which have been offered by various writers in the negotiation literature.

concerned with negotiation itself, but also "to those who work with an eye on the larger issues of organisational and societal order" (p. xi). An important element that is central in not only Strauss' definition but most other definitions of negotiation (see for example, Bazerman and Neale, 1983; Keltner, 1994; Mastenbroek, 1989) is a strong emphasis on interdependence among actors in organisational or social settings. The notion of interdependence suggests that notwithstanding the divergence of interest among organisational or social actors, parties to any negotiation process (are assumed to) strive for an outcome that is perceived as an acceptable combination of self-interest and the equally important need to live together. As Mastenbroek (1989, p. 3) notes, "I have gradually come to see [that] negotiating ... combine[s] self interest with the fact of interdependence".

5.2.1 Negotiation Perspective in Organisational Analysis: An Historical Overview

Between the late 1960s and early 1970s studies of organisations seemed stuck in the rut of producing more and more quantitative material with less theoretical (qualitative) content (Morgan, 1990). The only theoretical content in those studies, Morgan argues, comes close to a "sterile form of functionalism in which organisational structures were justified as fitting the organisation to the environment" (Morgan, 1990, p. 12). This provoked radical theorists such as Silverman (1970) to question the methodological foundations of this view and to argue a basic Weberian perspective that the viewpoint of actors within organisations be accorded primacy in organisational research processes (Morgan, 1990, p. 13). Following these initial efforts other theorists (including Pettigrew, 1973; Zartman, 1976; Strauss, 1978; Burrell and Morgan, 1979) made significant attempts to provide alternative approaches to studying organisations.

Although some theories of negotiations existed before the gross dissatisfaction with the dominant functionalist approach to organisational analysis (see Chamberlain, 1951; Schelling, 1960) the strong and urgent need for alternative ways of understanding organisational processes (in the early 1960s) made theories of negotiation popular among researchers from the end of the 1970s onwards (Strauss, 1978). As Cummings (1977, p. 61) observes:

> increasingly, scholars from varying disciplines and orientations are depicting organisations as arenas within which people play out their own agendas or as

performance without script or program. That is organisations are seen as being enacted in process. These perspectives imply that the criterion of effectiveness and its assessment are multidimensional, time-bound, and dynamic subject to negotiation.

The dramatic increase in interest among scholars using negotiation as a theoretical lens made a number of theories about the nature of negotiation visible in the academic journals giving rise to a substantial body of literature on the subject (Coddington, 1968; 1972; Cross, 1969; Ikle, 1964; Moore, 1986; Neale, 1984; Neale and Bazerman, 1991; Pruitt, 1981; Pruitt and Carnevale, 1993; Strauss, 1978; Strauss et al., 1963; 1964; Young, 1975; 1976). By the late 1970s theories of negotiation had gained dominance in the international diplomacy literature and aspects of the field of political science (Cohen, 1990) Rather than reviewing the entire literature on negotiation, this section sought to demonstrate how the concept of negotiation has become so important in organisational analysis. This provides the foundation for the arguments presented in section 5.6.1 for a negotiated order perspective in accounting research.

5.3.0 The Negotiated Order Perspective: An Explication

The concept of organisations as negotiated orders was "accidentally" coined when Anselm Strauss and his colleagues (1963; 1964) were engaged in research in two psychiatric hospitals[2]. In the course of the research which sought to find the importance of negotiation in social orders, Strauss and his colleagues drew a number of conclusions which later became an entire perspective labelled the "negotiated order perspective" which has had so much influence on mainly interactionist researchers (including Bucher, 1970; Bucher and Stelling, 1969; Gerson, 1976; Martin, 1976; Morgan, 1975; Stelling and Bucher, 1972). Notwithstanding the significant interest (in negotiated order perspective) among researchers in the organisation studies and social psychology literatures in the 1960s and 1970s, recent works which draw specifically on the negotiated order perspective are fairly scarce. However, there are occasional statements in recent writings (i.e. the late 1980s to date) which re-enforce the conceptual basis of the negotiated order perspective though without explicitly acknowledging any influence of the work of Strauss and his colleagues (see Keltner, 1994; Mastenbroek, 1989; Pruitt and Carnevale, 1993). The works of other social theorists such as Giddens (especially when he discusses the notions of "duality of

[2] Reed (1985, p. 53) suggests that the central component of the negotiated order perspective were foreshadowed in the works of Dalton (1959) and Goffman (1959).

structure" and "dialectic of control") and Foucault (when he takes on the issue of power in contemporary societies), bear strong relationship with the framework that is suggested by the negotiated order perspective (see Craib, 1992 on Giddens; and Clegg, 1993 on Foucault). In particular, the similarities between the works of Giddens and the negotiated order perspective can be explained by the influence of Mead on both theorists. As Reed (1985, p. 53) observes in the case of the negotiated order perspective:

> the negotiated order approach took its theoretical inspiration from the work of Mead (1936) who had argued that the problem of incorporating participative mechanisms of social change in the prevailing industrial structure of society was the central political and sociological issue confronting modern industrial society. Given this focus on the reproduction of social institutions through interactional processes, Strauss and his colleagues contended that the structural framework in which collective social action was located had to be continually reworked and renewed through a negotiating process involving all the main social groupings constituting a particular social unit, whether at the level of the nation state or the individual organisation.

Similar influence of Mead can be found on Giddens, particularly with his structuration theory (see Clark, 1990, p. 24). Therefore in presenting the material in this section, the researcher recognises how those theoretical discussions could help clarify the position of the negotiated order perspective by drawing relevant comparisons between the writings of Giddens and to some extent Foucault and the perspective adopted in this thesis.

A useful starting point for a discussion of the negotiated order perspective is the view that organisations are social orders and what goes on in organisations (including the process of design, maintenance, and change of accounting and financial management systems) is to a large extent socially constructed. The perspective holds that this social constructedness of organisational processes is not accidental but reflects the interest (both overt and covert) that societal members have in these organisations. Such interest might be conflicting and subject to change upon the occurrence of certain events in the history of the organisation. These events, Strauss argues, are usually preceded by negotiations in which the organisational actors try to interpret the situation (which could be closely linked with prior events) in a manner that is consistent with their interest.

Following the premise that organisations are social orders whose realities are socially constructed[3], the negotiated order perspective further contends that social orders are to a very large extent negotiated orders "not only on the inside, but also on the outside"[4]. This implies that both inter and intra-organisational relationships including routine accounting and financial management procedures are characterised by negotiations. In response to his critics Strauss (1978, p. 250) makes the position of negotiated order clear by arguing that "there is no social order without a negotiated order; that is negotiation is part and parcel of any social order. That is *not* the same as asserting the theory of negotiation could explain everything about social order". In the opening chapter of his book *Negotiate*, Mastenbroek (1989, p. 3), puts forward a similar argument, though without drawing explicitly on Strauss, when he writes that:

> many organisational problems have negotiating aspects. An organisation is composed of interdependent units each of which has interest of its own. Every important decision in organizations involves some degree of contention between the parties involved. Strategy formulation, cutbacks, the allocation of personnel, budgets, authority, important projects, space in buildings, provision of secretarial support, automation facilities - all of these are issues in which negotiating plays a role.

The argument which Mastenbroek provides in the above quote is indeed a re-enforcement of Strauss' contention that organisations are negotiated orders. The perspective further argues that organisational interactions are anti-deterministic since it presents "a balance between completely free-willed actors and actors whose actions are fairly strictly determined" (Strauss, 1978, p. 16). Thus although management might constantly seek to enforce stringent accounting and financial management procedures and rules in organisations, the perspective holds that there are aspects of these procedures and rules which are implicated in organisational negotiation process. This view of the negotiated order perspective is quite similar to Giddens' (1984) notion of "dialectic of control". As Strauss (1978, p. ix) observes:

> a social order - even the most repressive - without some form of negotiation would be inconceivable. Even dictators find it impossible and inexpedient simply to order, command, demand, threaten, manipulate, or use force; about issues and activities they

[3] See Lawrence (1990) for a detailed study on "management accounting and the social construction of reality". Hines (188) also provides an exemplar of how financial accounting is implicated in reality construction.

[4] Similarly, the perspective argues that negotiations characterise both formal and informal relationships in social orders.

must persuade and negotiate.

Similar observations are made at the VRA when an organisational participant notes::

> ... Most of the important decisions at the Authority involve negotiations. We negotiate with the World Bank and other international financial institutions for loans, we negotiate with Valco for change in rates...... we negotiate with the Government for local rates... yes, an issue which should be rationally determined...In fact even at the internal organisational level most of our daily routines are negotiated. For example budgets, salary adjustments etc... (interview no. 02)[5].

Notwithstanding the anti-deterministic stance, Strauss and his colleagues argue that specific negotiations depend to a large extent on structural conditions[6] prevalent at any time. For instance when to negotiate with whom is certainly contingent upon the prevailing structure. However, Strauss and his colleagues argue that these structural conditions are never fixed but subject to constant changes through the process of negotiation. These constant changes in structural conditions reflect the differing interpretations that organisational actors (i.e. both internal and external) ascribe to organisational objectives (see section 7.2 for an empirical support of this argument in the context of VRA, *subter*). The significance of the prevailing structure at any point in time is that it makes negotiations in organisations patterned as opposed to accidental. In the psychiatric organisations studied, Strauss and his colleagues found that "negotiated orders had to be worked at, and the bases of concerted action needed to be continually reconstituted" (Strauss, 1978, p. 5).

The negotiated order perspective maintains that the products of negotiations in organisations include contracts, understandings, agreements, rules, etc. These rules and procedures include accounting and financial management systems such as rate setting at the VRA (*subter*). However, these products are far from being permanent because they have "temporary limits" and will be "reviewed, re-evaluated, revised, revoked, or renewed" (Strauss, 1978, p. 5). As Reed (1985, p. 54) observes:

> [the negotiated order perspective] ...suggested a model of organisation in which the more

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[5] See Chapter Seven for similar remarks by organisational actors.

[6] See section 5.4.0 for an explication of the terms structure, structural conditions, and structural properties as used in the negotiated order perspective.

> stable elements expressed in the concept of formal organizational structure - hierarchy, rules, procedures, regulatory codes - were seen as forming a background context against which the more ephemeral working relations constructed out of everyday interaction could be analysed. ... the 'structure' was regarded as a temporary patterning of the ebb and flow of interactional processes which was always open to periodic reappraisal and reconstruction through negotiated agreements...

This suggests that negotiations do not end once an outcome is arrived at, rather the contracts, understandings, agreements, and rules, form the basis for further negotiations in future. This view is shared by an organisational participant when he discussed the difficulties in pricing at the Authority as follows:

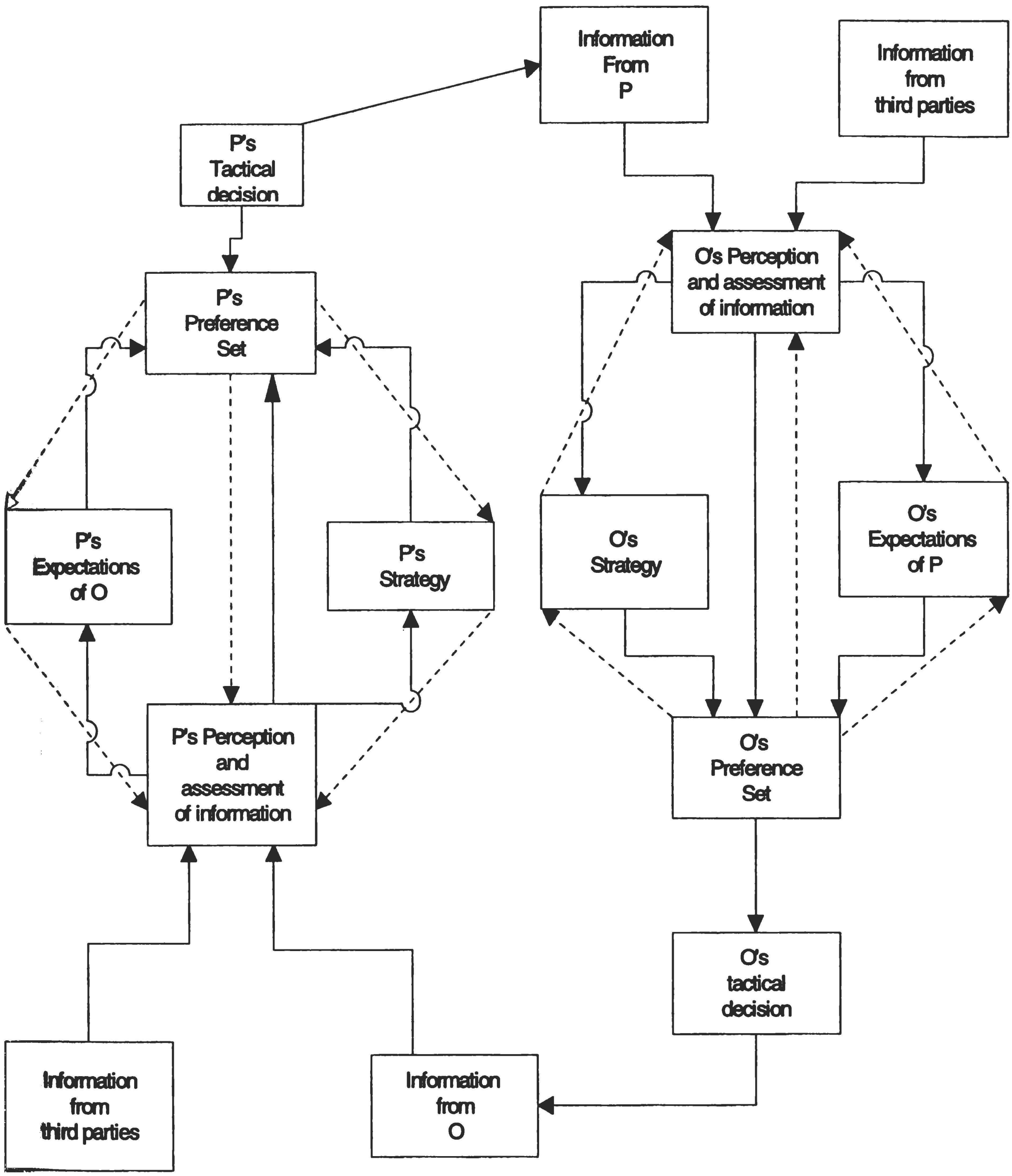
> ...we always have to negotiate with Valco and the Government for change in rates because there are always changes in the local and economic trends... These changes include inflation, foreign exchange rates changes, and other important aspects of our operations... negotiation of these issues are almost continuous... This is done in addition to the periodic review of the [financial] system and contract [with Valco]... (interview no. 27).

To this effect, the negotiated order perspective is consistent with the cyclical model of negotiation offered by Gulliver (1979). The cyclical model of negotiation which illustrates how negotiators evaluate information, arrive at outcomes, and how the outcomes form the basis for further negotiations, is reproduced diagrammatically in figure 5.1. This model attempts to explain the characterisation of a formal organisational negotiation process, it is unlikely that informal organisational negotiation processes will be patterned along these lines. Nevertheless, aspects of the model still provide a conceptual base for understanding informal negotiations and it is therefore drawn upon in making sense of both formal and informal negotiation processes in this thesis. As an interviewee noted:

> ... at the internal level, negotiations are informal and involve either inter-departmental or even inter-divisional issues... such as budget allocations and revisions... salary negotiations do not involve outside unions... just representatives from within the Authority... that is much more formal... But not like negotiations with Valco or the financial institutions.... we engage in different types of negotiation for different motives... (interview no. 2).

Clearly, the above quote further supports the contention that negotiation permeates the

Figure 5.1: The Cyclical Model of Negotiation (P, Party; O, Opponent)



Source: *Adopted from Gulliver (1979, p. 840)* management process of VRA and thus suggest the fruitfulness of the negotiated order perspective as a theoretical lens for problematising the technical façade presented in Chapter Four (*supra*).

The model posits that if a negotiating party has to receive needed information then it must likewise be prepared to give what the other party perceives as an informative message. This way information is shared in contrast with the economic exchange of goods[7]. Deliberate refusal to share messages on the part of one negotiating party "may in the short run draw messages from the other party", but persistent unwillingness to exchange information will eventually lead to an impasse and a possible breakdown of the negotiations (Gulliver, 1979, p. 85). An inherent problem which is acknowledged in the model is "that each party tends to edit in his own favour the information he offers"[8] (Gulliver, 1979, p. 85). Thus negotiating parties are seen to be stressing and exaggerating the more advantageous features of their case while ignoring the disadvantageous ones. This suggests a form of distortion in communication but it might not be in the sense that Habermas (1979) sees it because (as will be demonstrated shortly) the perspective presumes that a central element which characterises the negotiation process is a "balance of power". Therefore distorted communication in a negotiation process could not be attributed to excessive power[9] of the select few in society (as in Habermas' notion of "systematically distorted communication"). Certainly there cannot also be the ideal type communication which Habermas outlines in his theory of communicative action because of the recognition that negotiators employ numerous tactics to influence the balance of power. Thus the negotiation process could be conceived of as a communication level which falls between the two scenarios (i.e. distorted communication and ideal communication) which Habermas discusses in his theory of communicative action.

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[7] It contrasts with the economic exchange of goods because the model rejects the notion of imputed values (especially in terms of such measures as 'utiles') for the information which is shared by negotiators.

[8] This is not perceived as a major problem because attempts to influence the balance of power are inherent aspects of the negotiation process.

[9] The twin notions of "excessive power" and "powerlessness" which are central to some 'critical' and Marxian discussions are discarded in the negotiated order perspective and replaced by the notion of "balance of power" or "shared power".

The cyclical model maintains that the messages or information which are shared by negotiators are largely contextual. Assessment of the information is enabled by taking into consideration the context-bound nature of the negotiation process. Sometimes negotiators encounter messages which are too complex for a careful assessment (in a particular context) without additional information from the other party. Information of this sort "may have to be set aside for the moment until more information is accumulated or until a later phase of the negotiations" (Gulliver, 1979, p. 87). In presenting the model, Gulliver argues that there is no need to suppose that assessment of messages is "correct" or "complete", whatever that may mean (ibid, p. 87), but the assessment is required to enable the negotiating parties to request information which does not only reflect their interest(s) but also prevents the negotiation process from breaking down.

5.3.1 Power and the Negotiated Order Perspective

An important element which the negotiated order perspective acknowledges in social orders is the issue of 'power'. Each organisational/social actor is perceived to have some form of power which reflects his/her strength in the negotiation process. The perspective's conception of power is very much similar to the view presented by Giddens in his structuration theory. This view is captured by Craib (1992) when he writes that, power in structuration theory is seen to be shared among societal members in contrast with "functionalist perception of power where it is seen as a system product and against Marxists conceptions, where it is seen as connected with certain forms of property rights" (Craib, 1992, p. 36). The negotiated order perspective depicts power as an inherent and indispensable attribute/resource in all social interactions, including negotiations. This is reflected in Strauss' definition of negotiation in the previous section- one[10] of the ways of getting things done (see Strauss, 1978, p. 253, p. 80-85). Thus Strauss and his colleagues, like Giddens, do not "have an equivalent conception of what Habermas calls 'systematically distorted' communication - discourses in which truth is systematically skewed or hidden by power" (Craib, 1992, p. 53).

[10] Surely such a definition is appealing to the researcher because it recognises the fact that there are other options or alternative ways of "getting things done" in organisations (e.g. coercion, manipulation, arbitration). The perspective however, holds that in any social order (including organisational management processes), negotiations turn to dominate interactions "not only on the inside but also on the outside".

Other writers in the negotiation literature have addressed the issue of power in a negotiation process (see Cohen, 1990; Keltner, 1994; Lewicki and Litterer, 1985; Pruitt, 1981; Mannix and Neale, 1993). Most of these discussions tend to re-enforce the view put forward by Strauss and his colleagues. For instance, Keltner (1994), writing on "the management of struggles" in organisations, argues that "when the power between participants is relatively equal or balanced then the struggles may be resolved through negotiation" (p. 63). Mastenbroek (1989) expresses similar concerns when he writes that:

> parties may be unequally interdependent, but negotiating assumes a certain equality between sides. Where there are clear power differences, different behaviour occurs: manipulating and exploitative on the one side and submissive and complain on the other.

Such a view is consistent not only with Strauss' notion of power being shared among negotiators, but also Giddens' central argument on "dialectic of control" (see Craib, 1992)[11]. However, Mannix and Neale (1993) argue that there are instances when the parties are perceived to have unequal power and these have quite often led to agreement which have lower gains in comparison with situations where "balance of power" prevails. Reacting to Mannix and Neale (1993), Keltner (1994), argues that situations in which one party is perceived as lacking power or being powerless could not be described as negotiation processes. To further his argument, Keltner (1994) observes that "balance of power" (a notion which is similar to Strauss' "shared power") is a central issue in any negotiation process and its presence or absence is a critical determinant of any process that is described as a negotiation (this view on "balance of power" is shared by other negotiation theorists such as Mastenbroek, 1989). Mastenbroek distinguishes between three different types of organisational and social interactions: fighting, cooperation, and negotiation. He argues that a situation in which one party wields excessive power could be described as "fighting". On the other hand a scenario where power is perceived to have no relevance could not be described as negotiation, and Mastenbroek prefers the label "cooperation". He maintains that the negotiation process is one in which negotiators attempt to shift the balance of power using various strategies and resources including emergent power (see Mastenbroek, 1989, p. 12-13). The processes of influencing/shifting the "balance of power" in negotiations are in some respects similar to Clegg's (1993) readings of Foucauldian conception of power. As Clegg (1993, p. 158) observes:

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[11] See also section 4.6.1.

> central to Foucault's conception of power is *its shifting, inherently unstable expression in networks and alliances.* Rather than a monolithic view of power as invariably incorporating subjectivities, the focus is much closer to Machiavelli's (1958) strategic concerns or Gramsci's (1971) notion of hegemony not as structural ideology but as a 'war of manoeuvre'... (emphasis added).

Lewicki and Litterer (1985) also share the view that power is a crucial issue in negotiation process and seek to distinguish between six types of power including, informational, reward, coercive, legitimate, expert, and referent power. Lewicki and Litterer (1985) find "informational power (which consists of amount, sources, and persuasiveness) to be the heart of the [negotiation] process" (Keltner, 1994, p. 77). Other conceptual bases of the perspective are discussed in the next sub-section before mobilising the perspective to theorise public sector organisations and this impacts on accounting and financial management systems within these complex organisations.

5.3.2 Other Conceptual Foundations of the Perspective

Strauss and his colleagues maintain that of paramount importance in organisational negotiation processes is the interpretation that negotiators give to the concept of "legitimate actions". They observe that "*legitimacy boundaries* are not covered by clear rules and understandings: The boundaries themselves must often be negotiated" (italics in original, Strauss, 1978, p. 112). Organisational members therefore constantly seek justifying rationales as grounds for negotiating with other members being aware that these rationales may not be acceptable to the other negotiating party. Strauss (1978, p. 112) observes that:

> The legitimating rationales are grounded on such bases as legality (certification), appointed authority (institutional authorization), tradition, formal education (including degrees), prior experience with the task in question, current need or expediency, and a desire or wish to perform a task.

Another important concept which Strauss (1978) identifies as central to any negotiation process is the *structural context* within which negotiations take place. Negotiations bring out the structural properties of the social setting. Strauss observes that one important structural property consists of respective parties' theories of negotiation, which bear on the negotiation process. The respective parties' theories of negotiation are context-bound and could only be appreciated if the legitimacy boundaries were uncovered. As Pruitt and Carnevale (1993, p. 81) argue, "an individual negotiator's decisions and inferences are often made in the context of social, organisational, and cultural systems". Structural conditions are hard to know without participating in some form (i.e. either as a researcher or as an organisational member) in organisational processes. At the initial stages of any research, "the researcher is handicapped by how little s/he knows about the structural conditions bearing on the phenomenon under study" (Strauss, 1978, p. 240). It takes time to know them and researchers will need to be around long enough to be familiar with them. Strauss suggests that an alternative approach is for the researcher to endeavour to gain an understanding of the history of the organisation by interviewing organisational participants to establish their perceptions of structural conditions and how they have changed over time (see section 5.6.0 *subter*). The constant changes which occur to the structural conditions make it extremely difficult if not impossible to predict outcomes of negotiations[12].

As a guide for empirical research, Strauss and his colleagues suggest that the reconstitution of social order might fruitfully be understood in terms of a daily negotiation process and a periodic appraisal process. "The form not only allowed the daily work to get done but reacted on the more formalised and permanent organisational rules, policies, and established conventional understandings" (Strauss, 1978, p. 6). In turn the latter serve to set the limit and some directions for negotiations. In their closing remarks Strauss and his colleagues suggested that "future studies of complex relations that exist between more stable elements of organisational order and the more fleeting working arrangements might profit by examining the former as if they were sometimes the background against which the latter evolved in the foreground and sometimes as if the reverse obtained" (ibid, p. 7).

Having provided an explication of the conceptual foundation of the negotiated order perspective, the attention is now turned to mobilise the perspective to theorise public sector organisations which form the empirical focus of this thesis. This is carried out in the next section.

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[12] Certainly there are some studies which have sought to predict the outcomes of negotiations. These studies are grounded in a "functionalist" philosophical tradition which was questioned in Chapter Three (see for example Greenhalgh and Neslin, 1983).

5.3.3 Public Sector Organisations as Negotiated Orders

Defining public sector has never been (and may never be) an easy task because of its ever-changing nature (Lawton and Rose, 1991; Jones and Pendlebury, 1992). For instance in the not too distant past we had civil servants who were known as "administrators", today, with the introduction of the concept of managerialism, such people are now called "accountable managers". Indeed, any attempt to define public sector is most likely to provoke controversies because such a definition might not capture the current unpredictable trends in the 'public sector' nor can it stand the test of time. In this section, we shall refer to as public sector, any organisation in which the government has majority ownership. Such organisations typically include at least the government departments, local authorities, health sector institutions, educational institutions, the military, and police force. It will not be very surprising to find that some of these institutions listed above might not be classified as public sector organisations in some countries. That reflects the fluidity of the subject. In this section an attempt is made to bring out the characteristics of these institutions and to argue that they are, indeed, negotiated orders.

An important consideration in public sector organisations is the existence of strong political influence in their operations. In most public sector organisations, the objectives to be pursued are set by people who are independent of the management who run the day to day operations of the organisation. These objectives are quite often deliberated or even negotiated in parliament by people who know very little about the technical details of the organisation. The result might be vaguely defined objectives which are subject to differing interpretations (see Wanna et al, 1992).

The internal organisational arrangements in most public sector organisations usually involve bureaucrats, politicians, and professionals. While the bureaucrats and professionals, traditionally, are required to advise the politicians (who remain ultimately responsible) for the management of these organisations, evidence in the literature shows that there is constant power struggles between these groups (Giroux, 1989). Such power struggles are, in part, manifestations of the different interests pursued by these groups (see Adu, 1969 for a detailed discussion on the situation in Commonwealth Africa during the immediate post colonial period). As Stephenson and Pops (1990, p. 135) observe:

> the public sector manager, at all levels of the organisation but particularly at its higher levels, is a participant in the political process ... At the upper reaches of management, the relationship between politics/policy making and management is strong and even indistinguishable, but at the lower levels, the relationship weakens until, at the operational, technical level of the organisation, it is very weak but still present.

An additional dimension is the influence of pressure groups - societal members who have interest in the operations of the organisation but who do not form part of the internal structure of the organisation. This adds to the divergence of values and interest in the management of these organisations and the end product is a very complex arrangement. The divergence in:

> values, interest, resources, and methodology ... suggest the wide variety of influences that can separate both officials within the policy process and those outside the process who wish to shape its outcomes (Stephenson and Pops, 1990, p. 136).

Various researchers have suggested ways of "getting things done" in such a complex environment (see Dahl, 1955; Stephenson and Pops, 1990; Zartman, 1978). In spite of the differences in terminology, these suggestions turn to have very strong commonalities. For instance, while Dahl (1955) proposes "coalition, hierarchy, and bargaining" as alternative modes of getting things done in public sector organisations, Zartman (1978), drawing on Dahl (1955), uses the terms "coalition, judication, and negotiation" with definitions very similar to what Dahl (1955) provides. More recently, Stephenson and Pops (1990) maintain that the alternative modes of understanding public sector organisational interactions include "coalition, judication, rational planning, and negotiation" (for a detailed discussion of these modes see Stephenson and Pops, 1990, p. 143-146). In this section it is argued that negotiation provides the most convincing mode of explaining interactions within public sector organisations. Two reasons are offered for this: first, "coalition" and "judication", as described by Dahl (1955) and subsequently by Zartman (1978) and Stephenson and Pops (1990), are modes of dealing with conflict situations (those which have already arisen) rather than preventing impasse in public sector organisations. Second, "hierarchy" and "rational planning" suggest deterministic and structured immobilities as characterising the management process of public sector organisations. These assumptions are far-fetched because of the constant power struggles which turn to be inevitable in these organisations (see Giroux, 1988).

Such power struggles could lead to prolonged impasse in public sector organisations if "values, interest, and resources" (Stephenson and Pop, 1990) were not negotiated. Additionally, internal arrangements in these organisations and how these relate to wider socioeconomic issues suggest that various interest groups have some amount of power, albeit in different amounts. Thus one can argue that there is a quasi balance of power among interest groups in these organisations. For instance, the permanent nature of public sector appointments and the rigid bureaucratic procedures required for the termination of appointments in the public sector makes organisational actors as an interest group wield a great deal of power which could only be relinquished partly through negotiations. Such power might not be available to their 'private sector' counterparts because the procedures for termination of employment in the 'private sector' are relatively less "bureaucratic". Similarly, the parliamentary deliberations which mostly precede the determination of public sector organisational objectives further illustrates the argument pursued in this section that negotiations are crucial (at all levels) in the functioning of these organisations.

From the above, it seems clear that the conditions which prevail in the public sector are sufficient for one to argue that a rich understanding of accounting and financial management systems in these organisations could be provided by the negotiated order perspective. It is therefore not surprising that the psychiatric hospitals which were studied by Strauss and his colleagues when they "accidentally" coined the negotiated order perspective were public sector entities. Although the organisations studied by Strauss and his colleagues might differ from commercial public sector organisations in terms of objectives and structure, the social processes which they uncovered in the psychiatric hospitals are present in most public sector organisations. This gives the negotiated order perspective a very rich potential of providing a theoretical lens for understanding accounting and financial management in these organisations.

5.4.0 Linking the Negotiated Order Perspective and the Interpretive Methodology

In Chapter Three it was indicated that this thesis is guided by an interpretive methodology. This section seeks to bring out the link between the interpretive methodology and the theoretical perspective outlined above[13]. An important link between the negotiated order perspective and the

[13] Such an exercise is necessary to demonstrate the consistency between the broader methodological orientation of the thesis and the social theoretical lens which guides evidence

interpretive methodology is the common or shared view on "reality". The negotiated order perspective contends that reality is socially constructed as opposed to the structural functionalist view of reality as a concrete structure which exists out there irrespective of how human beings conceive of it. In presenting the broader philosophical assumptions regarding the nature of man and the nature of reality, Strauss (1978) quotes Day and Day (1977, p. 132), who appreciate the negotiated order perspective, as follows:

> In the case of the negotiated order theory, the individual in organisations plays an active, self-conscious role in the shaping of the social order. Their day-to-day interactions, agreements, temporary refusals, and changing definitions of the situation at hand are of paramount importance. Closely correlated is the perspective's view of social reality ... the negotiated order theory downplays the notion of organisations as fixed, rather rigid systems which are highly constrained by strict rules, regulations, goals, and hierarchical chains of command. Instead it emphasizes the fluid, continuously emerging qualities of the organisation, the changing web of interactions woven among its members, and it suggests that order is something at which the members of the organisation must constantly work. Consequently, conflict and change are just as much a part of organisational life as consensus and stability. *Organisations are thus viewed as complex and highly fragile social constructions of reality which are subject to numerous temporal, spatial, and situational events occurring both internally and externally.* The portrayal of the division of labor involves the historical development of the organisation and its occupational and professional groups, as well as those relevant changes taking place within the broader social, political, and economic spectrum of the organization. Similarly, power is not viewed in an absolute sense but rather in its relationship to other factors which create coalitions and partners varying with time and circumstances. ... Concomitantly, events which take place outside the organisation may also have a profound impact on both ... informal and formal structures (emphasis added, cited in Strauss, 1978, p. 260).

Negotiated order perspective seeks to gain an understanding of organisational processes from the perspective of the actors. This is consistent with interpretive methodological traditions such as symbolic interactionism (e.g. Blumer, 1969; Denzin, 1970; 1983; Glaser and Strauss, 1967; Mead, 1934) and ethnomethodology (Garfinkel, 1967). Both symbolic interactionist and negotiated order theorists have been criticised for "naïvely accepting the perspective of participants under study" (see Strauss, 1978, p. 251). Negotiated order perspective requires the researcher to seek evidence through the use of qualitative research methods such as interviewing, participant or non-participant observation, and document analysis. Interactionists employ similar methods because of the belief that "meaningful interpretations of human experience can only come from those persons who have

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interpretation at this second level of empirical analysis.

thoroughly emersed themselves in the phenomenon they wish to interpret and understand" (Chua, 1988, p. 62). Such methods of evidence collection quite often result in evidence which is perceived by structural functionalists as "uncritical" representation of the actors' perspective (see Haralambos and Holborn, 1991 for a detailed critique of these methods). As Day and Day (1977, p. 134) observe, there is "very strong tendency for the participant observer to embrace only the participants' own interpretations of certain situations". However, Strauss (1978, p. 251) argues that negotiated order perspective does not ignore structural considerations nor does it take uncritically the constructed world of the actors. This is where the perspective becomes so much linked with the interpretive methodological position of this thesis.

The negotiated order perspective takes a view of 'structure' which is very much consistent with the interpretative methodological position of this thesis. The view of the perspective on structure is captured in the following words of Strauss (1978, p. 257):

> Structure is not "out there", it should not be reified. When we talk about structure we are or should be referring to structural conditions that pertain to the phenomena under study. Those conditions surely do obtain but they just as surely need to be discovered and analytically linked with their consequences. Simply to assert their relevance is to mistake dogmatism for the completely different and often difficult work of demonstrating relevance.

Strauss further argues that structural process relates to various participants' awareness of which structural properties are operating or can be brought to operate during various phases of the process. The relationship to this awareness of structural processes are neither accidental nor entirely unpredictable, and it is up to the researcher to discover those connections. Strauss however, cautions that the researcher needs to understand that structural processes have consequences that enter into the emergence of new structural processes (p. 258). The above suggests that the view of the negotiated order perspective on 'structure' is not only consistent with the interpretive methodological position outlined in Chapter Three, but they do in effect, buttress one another.

5.4.1 Negotiated Order Perspective and Institutional Theory

Covaleski, Dirsmith and Samuel (1996) identify institutional theory as one of the most important interpretive theoretical positions which has received much attention in the managerial accounting literature. In this section, an attempt is made to draw parallels between the negotiated order perspective and institutional theory to further clarify the theoretical lens for making sense of empirical evidence in the second dimension of the analysis. Selznick (1957, p. 17) observes that "... to institutionalise is to infuse with value beyond the technical requirements of the task at hand"[14]. Institutional theory, which gained currency as a result of dissatisfactions with explanations grounded in contingency theory, has:

> directed attention to the importance of symbolic aspects of organizations and their environments. They reflect and advance a growing awareness that no organisation is just a technical system and that many organizations are not primarily technical systems. All social systems, hence all organizations, exist in an institutional environment that defines and delimits social reality (Scott, 1987, p. 507).

Institutional theorists argue that for organisations to survive they will need to interact with their environment in a way that is perceived as acceptable to the various constituencies in their environment. However, what institutional theorists have omitted to provide is the underlying processes which explain how organisations interact with each other in this wider environment. This void of institutional theory is filled by the negotiated order perspective. The perspective contends that the inevitability of interdependence among organisations requires negotiations on pertinent organisational issues to ensure the continued existence and proper functioning of organisations. Thus for VRA to exist and function properly, the perspective argues that it would inevitably have to engage in negotiations on aspects of its operations with other organisations. Rather than absolutely conforming with what other organisations perceive as "norms of acceptable behaviour" (Covaleski, et al, 1996) the perspective maintains that these norms are negotiable and set temporary limits to organisational functioning. Thus while accounting systems and accounting information might be perceived under the negotiated order perspective as documenting institutional compliance, or seeking external legitimation, or even "masking underlying sociopolitical reality" (Covaleski et al, 1996, p. 11; see also Ansari and Euske, 1987), the perspective further contends that these systems remain the subject matter for negotiations as long

[14] Such a 'broad' view of institutionalisation covers aspects of most other theoretical positions, including the negotiated order perspective.

as there is a balance of power[15] between organisations. Thus an important commonality between the negotiated order perspective and institutional theorising is the need to go beyond the technical view of accounting systems and the recognition that other organisations might have a role in constructing the reality of a particular organisation. In the case study of VRA, it is demonstrated that the Government of Ghana, international financial institutions (such as the World Bank), Valco, and to some extent the Ghanaian public have important roles in constructing what is perceived as reality, in terms of accounting and financial management systems. This process of reality construction, the thesis argues, is largely through negotiations.

5.5.0 Rationale for the Negotiated Order Perspective

In Chapter Three, the rationale for taking an interpretive methodological position was provided. This section expands on the previous discussion by providing justifications for the theoretical perspective guiding the arguments developed in this second dimension of empirical analysis.

Calls for 'broader' views of accounting (those which go beyond the dominant technical rational perspective) are widespread in the extant accounting literature (see Chua, 1986; 1988; Dillard, 1991; Hopper and Powell, 1985; Hopwood, 1984; Lauglin, 1987; 1995; Llewellyn, 1993). Response to these calls have seen a growing body (of another dimension) of accounting literature which is variously referred to as "new accounting research" (Morgan and Willmott, 1993); research which employ "alternative approaches" (Broadbent and Guthrie, 1992), or studies grounded in "interpretive methodologies" (Chua, 1988; Llewellyn, 1993). The predilection of this literature is the strong influence of the works of social theorists such as Marx, Weber, Giddens, The Frankfurt School (particularly the work of Habermas), and Foucault, among others (see Scapens, 1990). As indicated in Chapters One and Three, studies in this tradition do not only find the epistemological and ontological underpinnings of the dominant scientific 'paradigm' questionable (or far-fetched), but sometimes explicitly attack the roots of that tradition (for the latter see Aitken and Gaffikin, 1987). The rationale for appreciating the "alternative approaches" to accounting

[15] DiMaggio (1988) argues that institutional theorists have often tended to "place organizational structures and practices beyond the reach of power and self-interest" (cited in Covaleski et al, 1996, p. 15). This forms an important point of difference between the negotiated order perspective and institutional theory. Nevertheless, the two theoretical perspectives still share some common views as illustrated above.

research was addressed in Chapter Three. The next section provides what could be perceived as the contribution of this thesis to the efforts made by researchers who employ the "alternative approaches" by indicating the rationale for a negotiated order perspective in accounting research.

5.5.1 Negotiated Order and the Accounting Literature

In his critique of Burrell and Morgan's highly dichotomous classificatory scheme, Boland (1989) cautions that there remains a danger of accounting research being trapped in another paradigm (after it has been salvaged from the dominance of the functionalistic paradigm) if the subjective-objective dichotomy is overemphasized. But the "alternative approaches" being the "intellectual currents of today" , are arguably, "breaking the constraints of the objective-subjective dichotomy" (Boland, 1989, p. 592). While studies employing "alternative approaches" have been applauded in various respects (see Morgan and Willmott, 1993) this 'emerging' dimension of accounting research still demonstrates "a strong capacity for innovation and experimentation" (Morgan and Willmott, 1993, p. 25). For instance, although negotiations have been argued to be central in all social orders (see Strauss, 1978), there appears to be no known study in the accounting literature which specifically draws from the "negotiated order perspective" to provide an understanding of accounting as a social practice within social orders[16]. A negotiated order perspective has the advantage of providing another dimension (one that has not been explored) to the efforts that have already been made to understand accounting within social settings. This does not only form an important rationale for the theoretical lens, but also constitutes a major contribution of this thesis to the extant accounting literature.

Although accounting researchers have not directly explored the insights that could be gained from approaching their studies with the negotiated order perspective, there are nonetheless, some studies which present arguments which are quite similar to what is pursued in this thesis. The closest in this regard are those which employ Giddens' structuration theory to understand accounting phenomena (e.g. Chew, 1993; Macintosh and Scapens, 1990; Roberts and Scapens, 1985). Perhaps the most obvious similarity between this thesis and those studies is the way the issue of

[16] Although Tomkins (1987) touches tangentially on the negotiated order perspective in his study which sought to provide guidance on "achieving economy, efficiency and effectiveness in the public sector", the perspective did not form the central social theoretical lens of his project.

power is analysed in these studies. Following Giddens, some accounting studies (informed by structuration theory in particular) distinguish between two types of power: (i) broad power (i.e. the ability to get things done) and (ii) narrow power (i.e. domination) and have discussed accounting along these lines (see Macintosh and Scapens, 1990). As indicated earlier, the negotiated order perspective takes a view of power which is consistent with Giddens' idea of "broad power". The analysis of the issue of power in accounting research grounded in the negotiated order perspective will not differ significantly from these prior studies especially those which understand power in terms of Giddens' concept of "broad power". Similarly, Giddens' view (in his structuration theory) that power does not rest with only those people who are in high social status is a clear restatement of the negotiated order perspective's basis for rejecting the conventional dogma of powerlessness (as stated in section 5.3.0). Indeed his further arguments on the "dialectic of control", where subordinates are seen as wielding some amount of power is equally consistent with the central issue of "balance of power" in not only the negotiated order perspective but the concept of negotiation itself (as explicated earlier in the chapter).

Accounting researchers who have drawn on structuration theory as a guide for understanding accounting in action have also explored the ways in which accounting is used as a tool for domination, signification, and legitimation of social processes (see Boland, 1993; Macintosh and Scapens, 1990; Roberts and Scapens, 1985) and the ability of accounting to bind time-space at institutionalised level (see Chew, 1993). An important difference between this thesis and studies informed by Giddens' structuration theory is the extent to which negotiation is emphasized. While those studies which are informed by structuration theory make negotiations implicit in their analysis (see for example Chew, 1993), this thesis not only makes negotiations explicit but central in understanding accounting and financial management within social orders.

Perhaps Hopwood (1990, p. 9) partly captures the concerns of the negotiated order perspective when he raises the following concerns:

> ... which group has the power to influence the patterns of visibility prevailing in the organisation? What bodies of knowledge and sets of organisational practices are involved in making some things visible and other things not. *How contested are dominant patterns of visibility*. And from where have new visibilities emerged (emphasis added).

Negotiated order perspective seeks to explore the processes which lead to the (in)visibility of certain accounting procedures through an appreciation of the processes of interactions both within and outside organisational boundaries. What becomes (in)visible is perceived as the product of negotiation and forms a basis for further negotiations. Thus what is visible or invisible, the perspective contends, might only be a temporary structural condition.

5.6.0 Negotiated Order Perspective and Empirical Evidence Analysis: The Importance of Organisational History

In discussing possible applications of the negotiated order perspective for empirical research in the social sciences, Strauss and his colleagues (1963; 1964) indicated that, as a first step, researchers would need to identify the relatively permanent structural conditions and the main actors (i.e. both internal or external to the organisation) before they can explain how negotiations are instrumental in the underlying processes of change to these structural conditions as part of the overall management of the organisation. Strauss (1978) recognises that while in most organisations, there are bound to be more than one core structural condition[17], it is possible for organisational actors to recognise the structural condition which is perceived as central to organisational interactions (both within and outside the boundaries of the particular organisation). For researchers to be able to identify this core structural condition, they will need to stay in the organisation for a long time[18]. An alternative is for the researcher to seek the views of organisational actors on what they perceive as the most important structural condition(s) in the overall management of the organisation. This alternative was applied in the thesis. In the case of the VRA organisational actors identified the issue of pricing as the most important structural condition in VRA's management process (see Chapter Seven).

In addition to the identification of the core structural condition(s), Strauss and his colleagues also maintained that researchers will need to gain an appreciation of the historical circumstances of the

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[17] The single structural condition (or group of conditions) upon which interactions in the organisation seems to revolves.

[18] While Strauss does not suggest a length of time that is required to enable researchers to identify this core structural condition, the argument presented in their work is consistent with the technique of ethnography (see Strauss, 1978)

organisation concerned to enable an understanding of not only how these changes in structural conditions could be explained but why they occur over time. This involves documenting the principal issues, including contracts, agreements, rules and procedures which were instrumental at the time of establishing the organisation and elaborating on how they were arrived at and how they are changed over time. As Strauss and his colleagues advise, these changes are understood and interpreted in terms of the daily negotiations at VRA together with the periodic appraisal process. The interpretation of the negotiations and periodic appraisals (particularly involving the negotiations between VRA and Valco[19]) are done using the cyclical model of negotiations outlined in section 5.3.0. Such a model does not only make visible the respective positions of the negotiating parties but also shows how the negotiators evaluate information that is received from the other party (see Gulliver, 1979). These evaluations, the model posits, are contingent upon the negotiator's interpretation or understanding of the other party's interest(s) and the strategies or other resources currently available (to him or her) for influencing the balance of power. Such interpretations are in turn dependent upon the negotiator's perception of what is "legitimate action" in the negotiation process. Therefore the empirical evidence analysis is carried out within the context of the "legitimacy boundaries" which prevailed at the time of the negotiation. This allows the researcher to gain an understanding of the various accounting and financial management logics which guided or underpinned changes in organisational processes. How these outcomes (including accounting and financial management procedures) are further subject to negotiations with time is also investigated. Such a process, the cyclical model posits, has the potential of explaining the process of organisational change including the processes of redesigning accounting and financial management systems.

In view of the importance of historical analysis in making sense of empirical evidence through the negotiated order perspective, Chapter Six presents a discussion of VRA's history.

5.7.0 Chapter Summary and Conclusions

This chapter has elaborated the social theoretical perspective which guides evidence analysis at the second level of investigation presented in Chapter Seven of this thesis. The negotiated order

[19] See Chapter Six for a discussion of Valco's relations with VRA.

perspective has been explicated bringing out its conceptual foundations and the epistemological and ontological assumptions. The perspective maintains that organisations are social orders and what goes on within or between organisations is socially constructed. Among the important contentions of the perspective is the view that social orders are also negotiated orders "not only on the inside but also on the outside". This implies that inter and intra-organisational relationships are characterised by negotiations. The perspective, however, cautions that negotiation is only one of the possible ways of getting things done (other rubrics in understanding organisational processes include coercion, judication, manipulation, etc). The chapter has also stretched the view of organisations as negotiated orders to theorise public sector organisations. It argued that the constant power struggles which emanate from the internal arrangements within these organisations and the processes through which objectives are set for public sector organisations, give the negotiated order perspective a rich potential of understanding public sector organisations. A linkage between the negotiated order perspective and the interpretive methodological position of this thesis is drawn through a discussion which highlights the commonality in terms of epistemological and ontological underpinnings. The rationale for drawing from the negotiated order perspective is provided by arguing that most studies in the extant accounting literature (which seek to understand accounting as a social and institutional practice) have not made negotiations central/explicit in their analyses despite the overarching view in the organisation studies literature that negotiations are pivotal in all social orders. By drawing from the negotiated order perspective, this thesis provides a further dimension to the understanding of accounting within social settings and thus contributes significantly to the current efforts of seeking to understand accounting in action. Given the importance of historical analysis in making sense of empirical evidence through the negotiated order perspective, Chapter Six provides a discussion of VRA's history.

Chapter Six

Historical Analysis of the Volta River Authority

6.1.0 Introduction

The discussion in Chapter Five indicated the crucial importance of an appreciation of the historical circumstances of an organisation in seeking to make sense of empirical evidence with the negotiated order perspective as a theoretical lens. The objective of Chapter Six is to elaborate upon some significant historical events which are relevant for an understanding of VRA's accounting and financial management procedures and how they have changed over time. In particular, the chapter discusses the various forces which were responsible for the establishment of the VRA and the main 'actors'who have been instrumental in its management process. The future of the VRA in the context of Power Sector Restructuring Program is also elaborated.

The structure of Chapter Six is as follows: The Chapter begins with a discussion of the history of VRA focusing on the events which are perceived by organisational actors as having a direct bearing on the Authority's past and present accounting and financial management systems. In particular the 1962 Master Agreement and the events leading to these agreements are elaborated. The penultimate section introduces the proposed Power Sector Reform in Ghana and its potential impact on the VRA while the final section provides a summary and conclusions of the chapter.

6.2.0 From the Volta River Project to the Volta River Authority

As indicated in Chapter One, the Volta River Authority was established in December, 1961 as a body corporate under the Volta River Development Act (Act 46). The history of VRA is embedded in the Volta River Project (a term used to describe the construction of the hydro-power dam and the aluminium smelter, and the creation of the Volta River Authority and VALCO) which dates back to the period of colonial administration. A respondent with 33 years of service at the Authority remarked:

> ... VRA evolved from the Volta River Project.... It was only a change of name following the establishment of the organisation... All the contracts which currently affect VRA's financial management were signed during the negotiations to get the Volta River Project off the ground... (interview no. 55).

Interesting accounts of the long history of the project, which resulted in the construction of the largest human-made lake in the world, are to be found in Moxon (1969) and Graham (1982) respectively sympathetic and critical accounts (Sims and Casely-Hayford, 1986). As indicated earlier, this section presents the historical circumstances which resulted in the establishment of VRA as a background for understanding the interpretive construction of VRA's accounting and financial management systems in the ensuing chapters.

6.2.1 The Antecedents of the Volta River Project

Following the recommendation of a 1913 report on a scientific geological survey of the Gold Coast[1] mineral wealth, and the discovery of large bauxite deposits in the Kwahu Plateau in 1915, studies were conducted into the potential for a hydro-electric scheme in the Volta River. However, the Colonial Office in London[2] showed little interest in the project. There were speculations (see Graham, 1982, p. 121) that firstly, Britain was not ready to exceed the financial resources approved by the British Parliament for developing the resources of the Gold Coast. Secondly, actions were taken by Britain, more often, to pre-empt rival capital from moving to challenge British hegemony than to explicitly exploit imperial minerals wealth (see Graham, 1982). The colonial administration therefore did not find it absolutely necessary at this stage to undertake the hydro-electric project since there was no threat to British hegemony.

By the end of World War Two, however, a period of intensified competition for raw materials opened up between rival companies within the aluminium industry. Five different companies declared their interest in the bauxite and hydro-power potential of the Gold Coast. These companies included BAC, ALCAN, WAFAL, Reynolds Metals, and West African Electrical Development Company (Graham, 1982, p. 128). With the exception of Reynolds, all these

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[1] Ghana was called the Gold Coast before political independence.

[2] After a series of confrontations between the British and Ashanti (the most powerful Kingdom in the region before British annexation), the region which is called Ghana today, became a British colonial territory in 1896. Prior to British colonialism, the region had seen the presence of a number of Europeans, including the Dutch, the Portuguese, the French, the Swedes, and the Danes all in such of gold and slaves.

companies already held concessions[3] of some kind in the colony and it was this fact that made some kind of government intervention essential if the hydro-electrical scheme was to proceed. The intense competition among rival aluminium companies for the Gold Coast Bauxite deposits forced the colonial administration to change its "lacklustre" attitude towards the project (Tsikata, 1986).

6.2.2 Nationalism and the Volta River Project

After World War Two, there were political uprisings calling for the end of British rule in the colony. During this period, specifically in 1949, Sir William Halcrow and Partners, Consulting Engineers were commissioned by the colonial administration to conduct a survey into the hydro-electric potential of the Volta Basin. Their report proposed a dam to be built at Adjena, an aluminium smelter at Kpong and a port at Tema. Two years after the commission issued its reports, the Convention People's Party (CPP), a "highly radical nationalist party"[4], came to share power with the colonial government and between 1953 and 1956 it appointed a high level Preparatory Commission to investigate thoroughly, all aspects of the Volta Project. Such an investigation was necessary because the nationalist party (led by Osakyefo Dr. Kwame Nkrumah) emphasized in its manifesto that:

> The development of the Volta River Project would undoubtedly add materially to the well-being of the people and open new opportunities for increased prosperity as a result of the expansion of industries which inevitably follows the provision of cheap power (CPP 1951 Manifesto, Cited in Graham, 1982, p. 159).

The Commission's report confirmed that the scheme was technically feasible and prescribed

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[3] See Graham (1982, p. 128) for details of the concessions granted to each company.

[4] Soon after the Second World War, some educated nationalist challenged the British hegemony and called for immediate return to self rule. Two important political organisations (the United Gold Coast Convention and the Convention People's Party) subsequently emerged from the dissensions of colonial rule. The latter won the first general elections and came to share power with the British colonial administration. This provided the setting for further agitations for self-government. Following a series of boycotts, strikes, and non-cooperation "based on the principle of non-violence" (Nkrumah, 1962), the British House of Commons voted the bill conferring self-government to the people of the Gold Coast. Thus Ghana became politically independent from Great Britain on March 6, 1957 (indeed, the first country south of the Sahara to achieve this status from Britain) and subsequently became a republic on July 1, 1960.

detailed measures for its realisation. Among the conclusions of the report was:

> The development of the Volta Basin would be impracticable without the fulfilment of a hydro-electric project and the hydro-electric project would in turn be economically impracticable but for the heavy demand which would be created by the aluminium factory (Sir William Halcrow and Partners, 1951; cited in Graham, 1982, p. 159).

The Commission recommended that the success of the project was threatened by the possibility of the plant running under-capacity after it has been completed, a problem common with most Government investments at the time (see Killick, 1978). The most important way to address this problem, the Commission advised, was for the Government to establish an aluminium smelter which would guarantee the consumption of power generated from the project, most particularly during the early years after completion. The Commission further recommended that since this might require high capital investment, the Government should invite private aluminium companies to establish this smelter with a possibility of nationalisation at a later period. Consistent with the Commission's recommendation, in 1951 negotiations were held between the Gold Coast Government and ALCAN for the establishment of an aluminium smelter by the latter. On grounds of safe-guarding national interest, the Government insisted on some measure of state equity in the smelter. After strong initial resistance to such a proposal, ALCAN finally accepted the principle of Gold Coast Government participation. However, Nkrumah was not happy with the scheme as proposed by ALCAN since it was basically an aluminium scheme which did not emphasize the integration of the industry (i.e. the extraction of Ghanaian bauxite and processing this into aluminium for export). In addition, the outcome of the negotiations with ALCAN suggested that out of the estimated 500 megawatts (MW) of power to be produced annually by the dam, 450MW would go to the smelter leaving only 50MW for the Gold Coast. This was enough for the normal load growth of the major towns and the mines, but not for the planned electrification and industrialisation of the country. Thus the Nkrumah Government saw ALCAN's proposal as unacceptable because it undermined the perceived rapid industrialisation plan.

With the rising demand for aluminium during the first decade after the war, in 1956 the aluminium companies showed more interest in the scheme. The CPP (still under the leadership of Nkrumah) then took a harder line, demanding 10% profit on sale of power to the smelter and complete nationalisation after 35 years[5]. This led to the breakdown of negotiations between the Gold Coast Government and the aluminium companies. The Gold Coast demands were then modified to a proposal which provided that 40% of the equity of the smelter would be taken over by the Gold Coast Government after 35 years of its operation. The negotiations with ALCAN eventually broke down on the question of the tariff for power supplied to the smelter. The Gold Coast Government was asking for 4.5 mills per unit of power, whereas ALCAN would only pay 2.5 mills. The management of ALCAN observed that the high cost of the scheme (i.e. the Government's proposal of 4.5 mills) meant that ALCAN would be producing at a cost of P.Stg. 4 per ton of aluminium which compared unfavourably to what prevailed in Canada and Australia (see Moxon, 1969). It was suggested by ALCAN that to cut down costs, alumina might be imported from Jamaica. This was immediately rejected by the Gold Coast Government. As will be discussed, this suggestion which the Government rejected (when proposed by ALCAN) was accepted in the final agreements with VALCO (five years later), notwithstanding that it contradicted the original motivations for the hydro-electric project[6]. Graham (1982) has strongly criticised the Government of Ghana for accepting such a condition which amounted to a fundamental shift in the economic development strategies of the country.

6.2.3 The Americans Show an Interest

During the immediate post war period, the colonial administration faced a challenge from America which had brought its troops into the colony as a result of the war. By 1946, the Cold War was already underway and the material base of the 'atomic age' required the new American super-power to secure supplies of certain key minerals, including aluminium (see Graham, 1982). The emergence of the cold war also overshadowed Anglo-American disputes and the Americans saw the need to capture all territories which had any potential of benefiting the Soviet bloc. Realising that the Gold Coast Government could not raise all the needed capital for the project, the CPP Government turned to the World Bank, the American Government, and the British

[5] This position was taken a year before political independence from Great Britain and it could be argued that the CPP needed to take such a stance because policies on the Volta Project were important issues in the elections leading to political independence (see Chapter Seven).

[6] Perhaps this inconsistency could be explained by the threat of the Soviet bloc discussed later in this section (see Chapter Seven for further discussion on this in the context of accounting and financial management issues).

Government for loans to finance the project. Following a period of negotiations, the potential financiers agreed that they would only fund the Volta Project if the Gold Coast Government could assure them there will be enough demand for such a huge hydro-electric potential.

Soon after the World Bank was approached for loans to finance the project, Kaiser Aluminium and Chemicals Corporation and Reynolds Metals Company[7] (two large American aluminium companies), showed strong interest in the Volta Project. Kaiser was however not willing to participate in the construction of the dam, nor was Reynolds, who was willing to invest in the smelter only if low cost of power could be assured. The scheme was now regarded (by the multinational aluminium companies) as a joint government-company venture, but as two separate developments (i.e. the dams and the smelter as separate entities), to be linked only by a power contract (see Graham, 1982). Graham interprets the emergent contract as one which gives Ghana ownership of the dam and any "surplus electricity", while the American owned multinational company would have the smelter and the profits. This was perceived by the Government of Ghana as an unsatisfactory outcome and the CPP insisted that the dam and smelter components of the scheme be tied together. The CPP maintained in its manifesto that the broader development requirements of the economy indicated the need for the dam even without the smelter. Negotiations on the need to tie the dam and smelter went on for more than a year without any significant outcome.

In 1959 (two years after political independence), Kaiser made detailed proposals for the Volta scheme in a Reassessment Report, in an attempt to get around the high estimated cost of the scheme. The proposal cut the overall cost by 30% by suggesting, among other things, that the opening of the local bauxite mines and the construction of an alumina plant be deferred. Although these were the aspects of the scheme which, it had been hoped, would be the catalyst of Ghana's industrialisation, the proposal was made by Kaiser on the basis that the possibility of an integrated aluminium industry could be abandoned in return for rapid progress with power facilities. The preliminary works on the contract for building the hydro-electric dam was awarded to Kaiser although Kaiser's suggestion was still under review.

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[7] It is important to note that Reynolds was one of the five aluminium companies which bided for the project in 1951 but failed to reach any agreements with the Gold Coast Government on grounds of the power rate.

6.2.4 Financing the Volta River Project: The Great Dilemma

Kaiser and Reynolds were now in a position to indicate the terms on which they would invest in the smelter and cheap power became a crucial element of the negotiations. The dilemma was that the aluminium companies would only proceed if a low rate could be negotiated, while loans for the scheme could only be secured if the rate was high enough to give the lending agencies an adequate guarantee not only of debt servicing ability but also sufficient returns on their investment. The Government in response to this pressure and being at the time advised by George Woods who was also Kaiser's financial advisor reiterated that though it wished to produce power as cheaply as possible it also wished to have a reasonable share of profits in the smelter company. The Government proposed that the smelter be financed entirely by the aluminium consortium but that the Government should be given the option to purchase 50% of the stock at a reasonable price within twenty years of its operation. In addition, the Government proposed that the power should be sold to the smelter at cost plus a nominal profit. The Ghana Government's proposal was deemed unacceptable by the two aluminium giants.

These disagreements were bound to persist because other potential financiers of the project (notably the World Bank) were not ready to commit their funds into the project without what they deemed a 'reasonable' power rate for the smelter. For instance, it was calculated by the World Bank that the Ghanaian consumers were likely to pay five times the price of power to the aluminum smelter under the proposals of Kaiser and Reynolds and this would constitute "a massive deterrent to the expansion of non-smelter demand" and for that matter development in other areas[8] (Graham, 1982, p. 182). The World Bank observed that:

> The higher the tariff negotiated for the sale of power to the smelter, the higher would be the returns on the project and on Ghana's investment. Since the returns at any tariff likely to be attractive to the smelter would not be very attractive to Ghana, the Government should make every possible effort to get the highest possible tariff...At some tariff, for instance at 2.5 Mills, power revenues from the smelter alone would never be large enough to cover debt service (The World Bank Preliminary Appraisal, 1960, p. 16).

[8] As Chapters Four, Seven and Eight illustrate, the World Bank's concern that domestic consumers might end up paying about five times what the smelter would pay, currently obtains in VRA's pricing structure.

Although there were still difficulties in agreeing on an acceptable power rate for the smelter, Kaiser formed a consortium of five aluminum companies: ALCOA, ALCAN, Kaiser, Reynolds, and Olin Mathieson (a Rockfeller company) that signed a "principles of agreement" document with the Government of Ghana in September 1959. Under the principles of agreements, the companies undertook to contribute $50,000 each to establish a limited liability company, to be named Volta Aluminium Company (VALCO), to explore the conditions under which a smelter could be constructed. From the outset it was clear that the consortium had the active interests of Kaiser and Reynolds (see Graham, 1982). While the other members of the consortium were prepared to consider the venture, they were nonetheless, not willing to accept the delays which were resulting from the negotiations. And their interests in the Volta Project soon waned. Kaiser and Reynolds then proposed in the negotiations that Ghana should receive approximately two-fifths of the power to be generated from the Volta Dam instead of the 450-50 split proposed earlier by ALCAN. Kaiser also predicted that with the cheap power expected to be available, Ghana would develop at the rate of a mature industrial economy. Since Nkrumah had always aimed at getting the extra power required for Ghana's intended industrial revolution, his government perceived this suggestion as one that could be accommodated in Ghana's development strategy (see Moxon, 1969). These predictions turned out to be quite incorrect and unrealistic and have become the most important criticism of the Volta Project and the Nkrumah Government[9].

The "Principles of Agreements" contained many of the concessions[10] eventually embodied in The Master Agreement (discussed in section 6.2.6, and subsequently in Chapter Seven within the context of VRA's financial management). These obligations provided the framework for more detailed negotiations in 1960 as both sides had to agree on a power rate and Ghana had to secure the international loans. The Volta Project, stripped of many of its original features (including bauxite mining, alumina production, as well as any integral relationship to Ghana's general plans for industrialisation) now consisted simply of the dam, the power house and a "bare minimum

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[9] This is evidenced by subsequent manifestos by the opposition party (U.G.C.C.) during the early post-colonial years and the position taken by the P.N.D.C. Government during the 1982-84 renegotiations with Valco (see Chapter Seven).

[10] Mahoney (1983, p. 168) agues that "... the Ghanaian concessions were more than generous..."

of assorted ancillary works", together with a wholly foreign and privately owned aluminium smelter processing imported alumina (Graham, 1982).

6.2.5 The World Bank Clarifies its Position

Having made concessions to attract the aluminium producers, Ghana now expected the loans to be forthcoming[11]. The problem which the Government faced, however, was to convince the lenders that Ghana would at least be able to service the loans for a project which appeared to benefit only the foreign and privately owned aluminium smelter (see Tsikata, 1986). Although the World Bank had expressed interest in contributing towards funding the project, its major concern was about the tariff rate to the smelter (Graham, 1982). The World Bank advised that it would contribute towards the project if the Government of Ghana could negotiate with the smelter for the 4.5 mills per unit of electricity which had earlier been proposed, and charge all other users of power 10.5 mills. Kaiser's report however estimated that a unit cost of 2.5 mills was possible and insisted that the smelter consortium had been formed on the understanding that power would be available at this price (see Moxon, 1969). In view of the Bank's advice that at this low rate revenues from the smelter alone would never be large enough to cover debt servicing requirements, Kaiser's solution was to pass the cost of the project to the Ghanaian consumer, who would be expected to pay at least five times as much for power as the smelter (Graham, 1982).

Thus it was clear that not only was the Government going to find it difficult to get sufficient revenue from power generated by the project to service the debt incurred for its construction, but it would be highly unlikely to make any profits from the dam and there would be no cheap power for non-smelter consumers. Nevertheless, the World Bank regarded the project as technically sound and the negotiations between the Government of Ghana and the two American aluminium giants continued to settle a power rate and to arrange the financing of the power project. Although the World Bank declared[12] the Volta Project as technically feasible, this had very little positive impact on the negotiation for an 'acceptable' rate to the smelter. Indeed negotiations

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[11] Sims and Casely-Hayford (1986, p. 17) write that "many parties were interested but no one was prepared to finance the whole project".

[12] In a published report (see Moxon, 1969).

were almost heading towards a deadlock (at the time the World Bank published its report), with the Government of Ghana showing some contempt for the delay in settling this vital issue (Graham, 1982).

6.2.6 The Effects of the Cold War: A Catalyst for the Volta River Project ?

The difficulty of determining a power rate (for the smelter) which would be perceived as satisfactory by the financiers, induced the CPP Government to turn towards the Soviet bloc which proposed to provide funds and engineers to build the dam for the hydro-electric project "within the shortest possible time" (see Graham, 1982). Not wanting to loose their foothold in Ghana (which was still an opinion leader in the African continent) to the communists, the Americans took immediate action to get the negotiations back on track and to complete an agreement on the project earlier than originally envisaged. As Calhoun[13] (1961, p. 64) observed:

> If we do nothing in Ghana...we may be risking the greater calamity of watching the African nations drift one by one into the Soviet camp. The American government and American industry, working as partners can do much to prevent this catastrophe. In our opinion, the Volta Project is a good place to begin.

Similar sentiments were expressed by Gbedema[14], a leading member of the CPP government, when he maintained that:

> Unless Western capital now shows some desire or willingness to go into Ghana, the proponents of establishing relations with the communist world would win the day (cf. Graham, 1982, p. 170).

Prompted by the Soviet threat, the US government, Kaiser, and the World Bank all relied upon George Woods (a former president of Kaiser's bankers and now a senior official at the World Bank, as well as an unofficial adviser to the Government of Ghana, see Graham, 1982 p. 183) to mediate an 'acceptable' solution to the imminent impasse. By 1961 the World Bank had

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[13] Calhoun is described by Graham as the contact man of Kaiser Aluminum and Chemicals Corporation who liaised between the US State Department, the Ghana Government, and Kaiser regarding the Volta Project.

[14] Gbedema was Nkrumah's deputy and also responsible for foreign affairs in the CPP government.

accepted to proceed with the project with a power rate of 2.625 mills (to the smelter), previously rejected on grounds of being uneconomical[15]. Kaiser then requested the US Government's support for their project (i.e. the smelter) in Ghana. Graham (1982) speculates that President Kennedy's government granted this support to Kaiser for strategic reasons including his aggressive business philosophy and intimacy with Nkrumah. After the American Government granted its support to Kaiser, the investment almost became 'risk-free' with a huge potential for returns. A spokesman of Kaiser is said to have remarked, "where else could we get a 120,000 ton aluminium smelter, costing $150, 000,000 of which 85% was supported by debts and 90% of that covered by the American Government" (Graham, 1982, p. 187).

At last, the Volta Project was launched in 1961 with financial support from the World Bank, US Government, and UK Government and loans from other financiers (see Appendix 6.1 for the detailed list of loan contracts). The Government of Ghana pledged to provide no less than half the total resources required. The smelter to be built by major aluminium companies was to purchase the bulk of the initial supply of energy. The first phase of the Volta River Project was completed in 1965. Four electric power generating sets with installed capacity of 588 MW were commissioned at Akosombo. Two years later, in 1967, the Volta Aluminium Company (VALCO), was established by Kaiser Aluminium & Chemicals Inc. (90%) and Reynolds Metals Company (10%), to use the electricity produced from Akosombo[16]. VALCO's smelter since the 1960s has been using imported alumina and its production is almost exclusively for export (see Sims and Casely-Hayford, 1986). Following a two-year pilot scheme, the Volta Lake Transport Company was established as a VRA subsidiary to provide commercial transportation on the lake.

A second phase of the Volta River Project was completed in 1972 with the addition of two generating units with installed capacity of 324 MW at the Akosombo Generating Station to bring total generating capacity to 912 MW. In December of the same year, a Transmission system was completed to link Togo/Benin's power to Ghana's. VRA, thereafter has been supplying power

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[15] Not only because it was a rate at which debt servicing would be difficult, but one that requires the domestic consumers to pay about five times what the smelter would be paying.

[16] The Akosombo Dam was the first hydro-electric dam constructed under the Volta River Project.

to Communaute du Benin (C.E.B.) which is responsible for grid power supply to Togo and Benin, Ghana's neighbours. The Kpong Power Plant with installed capacity of 160 MW was completed downstream of Akosombo in 1982 to utilise further the water released from the Akosombo Plant. This project involved resettlement of 8000 people into 6 settlement villages (see Chapter Eight for a detailed discussion of VRA's environmental obligations and the extent to which they are reflected in the current accounting and financial management systems). The Bui Hydro-Electric Project to be located in the North-west of Ghana was designed during the construction of the Akosombo dam but has not yet been built.

The severe draught of 1984 adversely affected the inflow of water into the Volta Lake. Consequently, electricity production had to be curtailed to prevent the lake level from falling below the minimum operating level that would drastically disrupt future supply of power. In 1983, the Ghana-Cote d'Ivoire Power Inter-connection was commissioned and by 1986 normal electricity production was resumed following improvement in the hydrological situation of the Volta Lake with full recovery achieved in 1989 (see VRA Annual Report, 1990).

6.2.7 The 1962 Master Agreement: Outcome of the First Negotiations at VRA

As the foregoing discussion indicates, the establishment of the VRA was preceded by negotiations between the Government of Ghana and the financiers of the Volta Project. This section presents the outcomes of these negotiations through a discussion of what is commonly known as the 1962 Master Agreement signed between the Government of Ghana (representing the VRA) and the Volta Aluminium Company (a private American Company)[17]. In discussing these agreements, attention is also drawn to the related agreements signed between the Government of Ghana (representing the VRA) and the World Bank, USAID, U.K. Board of Trade, and U.S. Export-Import Bank. The provisions in these agreements which are perceived to have direct accounting and financial management implications are presented here. A full list of the Authority's loan agreements is reproduced in Appendix 6.1.

The most important among the agreements signed between the Government of Ghana and the

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[17] A discussion of these agreements is important because of their perceived impact on the Authority's financial management systems (see Chapters Seven and Eight).

Western capitalist organisations (preceding the establishment of VRA), was the Master Agreement. The Master Agreement sets up the structure of relations between the Government of Ghana (representing VRA) and two investing aluminium companies (i.e. Kaiser and Reynolds), for an initial period of 30 years plus an option for further 20 years. Under the Master Agreement, VALCO was to be incorporated as a subsidiary of Kaiser Aluminum and Chemical Corporation (90%) and Reynolds Metals Company (10%). At the heart of the Master Agreement was the Power Contract which provided for the supply of hydro-electric power to VALCO aluminum smelter. The VRA was required to provide a constant power supply of 370 MW to VALCO during the first three years of its operation, with subsequent adjustments thereafter in accordance with the provisions of the contract (A detailed discussion of this is taken up in Chapter Seven). This was quite substantial given that the VRA had an estimated capacity of 615MW at the time. The Master Agreement and Power Contract took effect from the 22 January 1962. The Master Agreement was to prevail for a fifty year duration but most of the other contracts were for thirty years with an option for 20 more years, in most cases on the same terms (with minor exceptions for the power rate[18]). Most of these contracts had no provision for review in the event of changes to Ghanaian legislation (Sawyerr, 1986, p. 61). An important feature of these agreements were a number of concessions for VALCO. These concessions have been summarised by Sawyerr (1986, p. 60-61) as follows:

> exemption from power use taxes;
> unrestricted right to borrow from any lender, in any currency and at any rate of interest;
> duty-free and unrestricted importation of alumina and exportation of aluminium;
> duty-free and unrestricted importation of inputs and equipment for Valco's operations;
> unrestricted and duty-free importation of construction material and machinery;
> duty-free importation and exportation of personal effects of expatriate employees;
> a special and fixed tax regime;
> special exemptions from the exchange control laws to enable Valco maintain and use all foreign currency earnings in off-shore accounts, and to give interest loans to its shareholders;
> a 30-year guarantee against nationalisation or interference with the title, enjoyment or management of the property of Valco, its shareholders and debentureholders.

Also important among the provisions of the Master Agreement was the power rate which was set in 1962 at 2.625 mills per kilowatt hour with no provision for escalation. The agreement

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[18] See Chapter Seven

provided that this rate be paid in U.S. dollars. Sims and Casely-Hayford (1986, p. 20) observe that the rate contained in the 1962 agreements "was comparable to that charged by the Bonneville Power Administration in 1962, a U.S. power authority with eight smelters relying on its power, which probably amounted to over a third of U.S. smelter capacity"[19]. Like the other principal terms of the agreements, the 2.625 power rate was to remain fixed for thirty years from the commencement of the smelter's commercial operations, which eventually was 25 April 1967 (see Tsikata, 1986, p. 2). Tsikata writes that "almost from the day the VRA started supplying power to Valco in 1967, controversy persisted as to whether the rate was appropriate" (p. 2). This view is shared by an organisational participant who remarked:

> ... since VRA was established in the early sixties, Valco's power rate has always been the most controversial and worrying aspect of the Authority's financial management... After the agreements, the Authority found itself trapped between the Government's expectation that it should operate on sound commercial lines and the uneconomic power rates agreed with Valco... This has always been a problem... (interview no. 13).

In view of the overwhelming perception among organisational actors that Valco's power rate is the most problematic financial management issue[20] at the VRA, an extensive discussion of this issue is taken up in Chapter Seven when the thesis goes behind the technical façade to uncover the underlying processes which give rise to the accounting and financial management systems at VRA.

Other agreements included loans from US Export-Import Bank (US$90 million), World Bank and Canadian Loan Agreements which provided a set of loans and guarantee agreements for helping finance the development and expansion of the project. In the case of the World Bank, the contract was signed directly with the VRA and the Government of Ghana only served as a

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[19] A table comparing the rates charged by the VRA and BPA from 1967 to 1983 is provided in Appendix 6.2. While this provides an example of the trends in the industry, Chapter Seven illustrates how subsequent changes in the world economy have rendered the 1962 agreements the most problematic financial management issue at the VRA.

[20] What Strauss and his colleagues refer to as the core structural condition which is perceived by organisational actors as central to other aspects of the Authority's financial management.

guarantor[21], while the Canadian Loan was signed between the Governments of the two countries. Another important agreement was the Long Term Tolling Contract which provided agreement with VALCO to toll (i.e. smelt for a fee) aluminium for its shareholders, Kaiser and Reynolds, who agreed to use its smelter capacity. This latter agreements had some implications for the transfer pricing practices of Valco. A detailed discussion of the transfer pricing practices (or abuse) of Valco is provided by Graham (1982, see also Irish, 1986).

Various commentators have expressed sentiments about the 1962 agreements in different ways. Sir Robert Jackson, in a forward to Moxon (1969) argues that "the Master Agreement ... represents the best thinking that could be brought to bear on the project ... The Government of Ghana was advised by experts of high repute ...". These experts have been interpreted by Sims and Casely-Hayford[22] (1986, p. 19) to include "the World Bank and one of the large international accounting firms". Graham takes a more critical view of the agreements by arguing that the objectives of the Volta Project were far from realised. In furtherance of his critique, Graham maintains that the 1962 agreements were not consistent with the economic development strategies of Ghana. Sims and Casely-Hayford (1986, p. 21), however, seem to take a 'middle' position in their evaluation of these agreements by observing that "while the terms of the agreements were not very favourable to Ghana, however, they were not disastrously bad". In Chapter Seven an attempt is made not only to evaluate the 1962 agreements but also to draw upon these contracts to aid an explication of the nature of VRA's accounting and financial management systems and how they have changed over time. The thesis demonstrates how they play enabling and/or constraining roles in the design and maintenance of VRA's accounting and financial management procedures over the years.

6.3.0 VRA and the Power Sector Restructuring in Ghana

Under the economic recovery program which was embarked upon in the early 1980s, the Government of Ghana has sought to "reform" the public enterprise sector. Two most important public utilities which have been earmarked under the economic recover programme for

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[21] Perhaps this was to ensure the autonomy of the VRA.

[22] Casely-Hayford is a former Chief Executive of the VRA.

commercialisation are VRA and E.C.G. A report issued by the World Bank in 1990 estimated the capital invested in the Ghanaian power sector at US$1.2 billion and predicted that ongoing planned investments will increase this capitalization to US$1.5 billion in the next five years. Evaluating the performances of the VRA and the E.C.G. the World Bank report indicated that:

> VRA is already a highly autonomous, financially viable and well-run entity and attention is now focused upon bringing ECG to a similar standard. MFP [Ministry of Fuel and Power] has demonstrated a considerable commitment to this process in the last two years. Responsibilities of ECG and VRA have been redrawn in such a way as to stimulate competition in the delivery of electricity to consumers (World Bank Report No. 8207-GH, 1990, p. 5).

During the research interviews with the management of the VRA, concerns were raised about the need to operate on commercial lines and the VRA's prior commitments as reflected in their contracts with Valco. A senior staff member remarked:

> If there is to be full commercialisation of VRA as the government intends, then we have to reconsider the contracts with Valco in particular (interview no. 15)[23].

But commercialisation is imminent because the World Bank report identified the power sector as a potential constraint on economic development partly resulting from "under-investment in recent years, particularly by ECG in subtransmission and distribution facilities" (p. 6). A systems planning study carried out (by the Ministry of Fuel and Power) in late 1988 indicated that VRA would need to invest in additional thermal generating facilities to complement hydro energy in order to meet future load. This thermal program would add 300MW combustion and would be implemented over 4 phases through 2006. A first phase of the program was to be commissioned in 1992 but due to unexpected above average rainfall since 1989, the project was deferred until early 1996. The Chairman of VRA Board of Directors indicated in the 1994 Annual Report that:

> We achieved significant progress towards the realisation of our plans for building a 300MW Thermal Power Plant at Aboadze, near Takoradi. The first part of this Plant (200MW) is expected to be available by 1997. The Takoradi Thermal Project, ... is now estimated at US$426.9 million. To finance the scheme the authority had almost completed mobilising about US$324.1 million from a number of multi-lateral and bilateral international sources. Approximately US$102.8 million will be contributed from

[23] More of these concerns are presented in Chapters Seven and Eight when the socio-historical analysis of the Authority's accounting and financial management systems are provided.

> the Authority's own internally generated cash resources. It is expected that contracts for the implementation of the Project would be awarded in time for work to start before the end of 1995 (VRA Annual Report, 1994, p. 9).

The major stated goal of the Government is the provision of electricity to most of the population, by extending the interconnected transmission grid to towns and villages throughout Ghana, and especially to substitute the existing diesel generation by hydro power (see Chapter Eight for a detailed discussion of these issues). As the World Bank observes; ..."[the most important] goal is the provision of an efficient, and affordable supply of electricity to the whole country" (World Bank Report No. 8207-GH, 1990, p. 7).

6.4.0 Chapter Summary and Conclusion

This chapter has provided a historical account of the VRA, the empirical research focus of the thesis. It documents the significant events which occurred in the history of the organisation. In presenting these events, regard was given to those which are perceived as relevant for understanding the accounting and financial management procedures of the VRA. In particular the various negotiations which preceded the establishment of the organisation and the subsequent contracts and agreements which were signed by the VRA and financiers, including the World Bank and Valco, were discussed. The chapter also indicated the future of VRA under the proposed power sector restructuring in Ghana. The discussion in this chapter forms an important requirement for understanding the interpretive analysis of VRA's accounting and financial management systems through the negotiated order perspective. The next chapter problematises the technical façade presented in Chapter Four by drawing upon the discussions in Chapters Five and Six.

Chapter Seven

Behind the Technical Façade: An Interpretive Construction

7.1.0 Introduction

The perspective of organisational actors formed the core of the discussion of the technical procedures for VRA's accounting and financial management in Chapter Four. Chapter Seven takes the discussion further by demonstrating (through an historical analysis) how the accounting and financial management systems at the VRA have been constructed in response to the outcomes of negotiations between the organisation and its numerous external actors (particularly its major customer and international financial institutions). The chapter presents an interpretive construction of not only the discussions between the researcher and the organisational actors but also relevant documentation gathered during the period of the empirical evidence collection. The central theme of Chapter Seven is that the accounting systems which VRA has in place serve to legitimise agreements, contracts, and rules which derive from the organisation's relations with its financiers and major customer as well as the need to adhere to conventional 'accounting logic' for organisational management and control purposes (as purported in Chapter Four). In particular, the chapter demonstrates not only how the important financial management issue of pricing is very much a process of negotiation but how this subsequently impacts upon accounting issues such as overhead allocation. The chapter further illustrates how financial reporting and auditing at the VRA are instruments for communicating to financiers rather than the 'users' or constituencies of public sector financial reports identified in the conventional accounting literature (see Coy, 1995; Giroux and Shields, 1993; Likierman, 1992). Drawing from the discussions of these issues, the chapter then reinterprets the deficiency claim in the context of VRA.

Chapter Seven develops as follows. The Chapter begins by elaborating on the views of organisational actors which supports the contention that VRA's systems of accounting and financial management are, in some sense, instruments for documenting institutional compliance because of the Authority's resource dependency situation. To unmask the underlying sociopolitical reality, the chapter provides an historical analysis of what organisational actors perceive as the most contentious financial management issue (i.e. product pricing) because it presents major constraints in VRA's accounting and financial management process. In particular the Chapter illustrates how the centrality of negotiations stemming partly from the need to comply with prior organisational commitments downplay accounting and economic logic in pricing of the Authority's product to its major customer. In developing this contention, the Chapter also brings into the analysis the crucial importance of political influence in the negotiation process at the VRA through an illustration of how military juntas have interfered in the pricing of VRA's products in the past. The chapter then links the discussion on pricing to the Authority's overhead allocation procedures and argues (as some organisational actors do) that overhead allocation at the VRA is a posterior exercise which has very little influence on the Authority's predetermined pricing structure. Further evidence of how annual reports (including audit procedures) are perceived as instruments of accountability to financiers, because they represent sources of power in negotiating for financial resources, and therefore show very little regard for the information needs of the citizenry is provided. Before concluding, the chapter reinterprets the notion of deficiency of public sector accounting and financial management in third world countries in the light of the discussion(s) in the preceding sections.

7.2.0 Accounting and Financial Management Systems Design at the VRA: Evidence of Institutional Compliance Through Negotiation

In the VRA, negotiations characterise the management process of the organisation[1]. This could be understood not only in terms of the presence of diverse interest groups who are very concerned about the way the Authority is run (i.e. what is typical of most public sector organisations, see the discussion in Chapter Five) but also in terms of the specific historical circumstances of the organisation. The presence of a diversity of interest groups in the Authority's management and the need to satisfy the requirements of the dominant group (i.e. the financiers) made institutional compliance the most recurrent concern among organisational actors when they were asked by the researcher to identify the main problem(s) of VRA's accounting and financial management. For example, a respondent in the Finance Department observed:

> ... because of the agreements which were signed at the time VRA was established, we are faced with too many constraints in our financial management process.... The most important of these is the way our price setting is done.... You know,

[1] See the discussion in Chapter Five.

> the agreements were legal documents which could not be changed unilaterally... and they were structured in such a way that VRA is now severely limited in terms of what it can do... we are almost always faced with a conflict between accounting or finance logic and the need to comply with the prior contracts... the World Bank is another party that we have to comply with in designing our systems. Their requirements have to be given some attention because VRA can not do without the Bank... We do not see their requirements as bitter pills because they always like to ensure that the systems we have are strong enough to assure them that their funds will be properly managed and repaid when due... (interview no. 02).

Another respondent in the Finance Department noted:

> ...the only problem I see with our systems of financial management and accounting is the need to comply with the 1962 agreements...Those agreements were not properly designed and they are constraining the Authority's revenue growth potential... it [also] affects our accounting. For example, logically an organisation should be advised to supply its products to the market with the highest returns...by...considering cost minimization or revenue maximization...Such advice can not be fully applied in our case because of the Authority's existing contracts... that is the irony, we are expected to conduct our operations on sound commercial lines... In sum the Authority's main financial management and accounting problem is not the lack of control procedures, those are excellent. The problem is the need to comply with prior agreements... (interview no. 17).

Some commentators however, see institutional compliance as contributing to the "successful" management of the VRA, particularly with regards to the strength of its financial management and accounting systems. For instance, in his investigation of the performance of public corporations in Ghana, Killick (1978) observes that VRA was the most successful public corporation partly because of the strong role of the World Bank in the Authority's management process. Killick (1978) observes that:

> ... in order to secure the participation of the Bank (without which it may not have been possible to get the project underway at that time) the Nkrumah government found itself required to comply with conditions designed by the Bank to ensure that the project would be operated to its satisfaction. Thus, its prior approval was required for the appointment of the Authority's Chief Executive, the power rates were to be set in consultation with the Bank, an accounting firm acceptable to the Bank was to advise on the Authority's financial records.... In an additional agreement in 1969, the Authority agreed to review its operations, organizational structure, staffing policies and *accounting system in a manner acceptable to the Bank*. Of course, agreements can be broken...; they were not in this case... (emphasis added, p. 251).

The above quote illustrates the paternalistic relationship between the Authority and its major financier, the World Bank. It also illustrates the significant role that the Bank plays in what is perceived and pursued as accounting policies and control procedures in the Authority. Some respondents share the same view as Killick by maintaining that their positive perception of the Authority's accounting and financial management systems (as presented in Chapter Four) was partly due to the need to comply with the requirements of these international financial institutions. As one respondent noted:

> I think by complying with the requirements of these institutions, the Authority's systems become stronger... Consider those corporations which have no contract with the World Bank and other financial institutions... Those are the organisations which make headlines on corruption and embezzlement... Perhaps... I will not say the same thing about our relationship with Valco. That is different because they are also a commercial organisation and will always look for a better deal for themselves.... No, ... the need to comply with the contract with Valco makes our financial management and accounting rather difficult to understand by an outsider...Anyone who understands the contract and its financial implications will surely question it... it is the most important financial management problem at the VRA. If we could apply accounting and finance logic in our relations with Valco, then VRA would have been one of the most successful electricity authorities in the world (interview no. 33).

Other organisational participants maintained that the Authority always seeks to design financial management procedures which represent a balance of the requirements of the various financiers and other interested parties in the Authority's operations. Those who held this view argued that the Authority is able to achieve this balance through negotiations with the various constituencies. On this, a respondent in the Corporate Planning and Programming Department observed:

> we just don't take the word of the World Bank, there are other financiers and people who are very interested in what we are doing. ... Whoever told you we take prescriptions from the World Bank without scrutinising them for our own conditions, must not be properly informed. ... otherwise the other financiers would not lend to the Authority... and we also have other commitments which affect every aspect of our financial management... these commitments go back to the time VRA was established and ...are legally enforceable commitments (interview no. 02)[2].

It is interesting to note how this view is contradicted by other organisational actors in the same

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[2] The interviewee was responding to the assertion by Toye (1991) that the VRA unquestionably accepts financial management prescriptions from the Bretton Woods institutions as part of the conditionality for loans.

Department. Some respondents maintained that other international financial institutions lend to the VRA because of the confidence the World Bank has in their systems of financial management. As a respondent remarked:

> Most organisations cannot secure a single loan with the World Bank because of the nature and weaknesses of their accounting and financial management systems... In the case of the VRA, we receive loans from so many financial institutions, including Kuwati Fund, Saudi Fund,... All these institutions have confidence in our systems because they know the World Bank would not be lending to us if our systems were deficient... (interview no. 34).

Another respondent who was at the same interview session remarked:

> ... It is just like this analogy. If you are a qualified and well reputed financial analyst and continue to invest in a particular company by acquiring its shares on the Ghana Stock Exchange, other investors who have confidence in your abilities and foresight are definitely going to join. So the fact that our accounting systems meet the requirements of the World Bank is signalling to other financial institutions that we are a better managed organisation.... I can't talk about the VRA-Valco contract like that...The contract with Valco lacked foresight right from day one and it is a major constrain on our financial management and accounting today... (interview no. 34).

A respondent in the same Department also shared this view by noting that:

> ... I have no problem with the fact that VRA has to comply with the financial management and accounting requirements of the World Bank and other financial institutions. Those are their requirements if you want to lend from them... Do we make any noise about banks which seek collateral security from customers before lending? The presence of good financial management and accounting systems is one of the securities the Bank is also asking for. If you don't have a system that is satisfactory to the Bank, you either take its advise and change your systems to meet their standards or you forget their loan... (interview no.34).

It was noted that these contradictions in the views of respondents could be resulting from the fact that the Authority's financiers have similar financial management expectations from the borrower (i.e. VRA). In addition to the need to comply with the requirements of the World Bank and the Valco contract, organisational actors also identified the Government of Ghana as an important actor who has had a strong influence in shaping the Authority's accounting and financial management practice. As one respondent remarked:

> ... the Government also has a strong influence on the systems, particularly the pricing of our product to domestic consumers.... Even to the foreign customers, especially when the Authority engaged in negotiations with Valco in the early 1980s. It was the P.N.D.C.

> Government which negotiated with Valco on behalf of the Authority...Specifically in terms of accounting, I can'tsee any strong influence... We have to produce an audited annual report to ensure that the Authority is properly managed.... The only issue which the Government interferes with our in operations is the pricing of our product... perhaps this is because it is the most important and most contentious in VRA's [overall] financial management... (interview no. 21).

The discussion in this section shows that organisational actors perceive VRA's accounting and financial management systems as instruments for documenting institutional compliance. Clearly the resource dependency theory which is an aspect of the broader institutional and interpretive theory partly explains the role that is played by the Authority's system in the overall management of the organisation. The section also identifies pricing of VRA's products as the most contentious issue in the overall financial management of the organisation. However, it is important to observe that this issue could not be uncovered from the discussion of the technical procedures for financial management and accounting as presented to the researcher in Chapter Four. This is because, as organisational actors maintained, the systems of accounting and financial management serve to mask the "underlying sociopolitical reality" (see Ansari and Euske, 1987). This could only be appreciated, a staff member argues:

> ....if you discuss the history of the VRA with staff members and find their views on the current arrangement in terms of our pricing.... Most people will tell you that they are unhappy about the way the contract with Valco was structured and its implications for VRA's accounting... We are all affected by the contract because we are electricity consumers, our families.... (interview no. 02).

The above view supports Sims and Casely-Hayford's (1986) advice that to gain an appreciation of the financial management process at the Authority, it is extremely important to take the 1962 Master Agreement as the 'springboard'[3]. These agreements which formed the first outcomes of negotiations between the Government of Ghana (acting on behalf of the Authority) and the Western capitalists financiers of the Volta Project, are critically interpreted in the next sub-section[4]. The remainder of the Chapter therefore delves into the details of how negotiations

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[3] It must be mentioned also that Sims and Casely-Hayford's advice is further supported by an old adage in the researcher'slocal language translated as "without a good understanding of the past, the present will make little sense".

[4] Chapter Six elaborated upon the negotiations which preceded the 1962 agreements. This chapter does not seek to reopen the descriptions in Chapter Six, rather the agreements are critically reviewed in the context of the Authority's accounting and financial management systems.

form the bedrock of interactions between the Authority and its numerous external actors and how technical financial management and accounting issues are implicated in these interactions.

7.2.1 Summary of Institutional Compliance and the Concern about Deficiency

The discussion in this section suggests that the technical control procedures elaborated in Chapter Four are constructed to conform with the requirements of external constituencies such as the World Bank which is one of the means of disseminating Western ethnocentric accounting and financial management techniques in developing countries (see Briston, 1979)[5]. Organisational actors also indicate the extent to which these systems are constrained by prior agreements with the Authority's major customer and thus make conventional financial management procedures difficult to implement in some aspects of the Authority's operations. In the views of organisational actors the technical systems are means of documenting institutional compliance and might not represent controls which are developed to reflect the requirements of the Authority. These issues suggest some form of deficiency given the existence of multiple interest groups who are concerned about the way the Authority is run. The next section provides a detailed examination of the prior agreements and how these constitute an evidence of neo-colonialism, at least in the context of VRA's financial management.

7.3.0 Unmasking the Underlying Sociopolitical Reality: The Master Agreement as Evidence of Neo-Colonialism in a Financial Management Sense

Being the first black African country south of the Sahara to attain political independence from Great Britain, the Nkrumah government saw the danger of neo-colonialism as a major concern for newly independent Ghana (see Nkrumah, 1966). In his book *Neo-Colonialism: the Last Stages of Imperialism*, Nkrumah re-echoed this danger of neo-colonialism to other newly independent African countries maintaining that neo-colonialism was a problem looming the entire African continent (Nkrumah, 1966). However, this section argues that the agreements which were signed by the Nkrumah government and the financiers of the Volta Project contradicted Nkrumah's campaign against neo-colonialism, at least, in the context of the

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[5] see also the critique developed in Chapter Two.

Authority's accounting and financial management issues.

The basic starting point for any negotiation situation (as noted in Chapter Five) is shared interest in a particular human endeavour. Shared interests can be established in the negotiations leading to the Volta River Project. First, the World Bank had an opportunity to lend its money for the development of one of its member states, a third world country with the privilege of enjoying concessionary lending facility from the Bank (indeed, the World Bank was arguably, pursuing one of its stated principle objectives). Second, Kaiser and Reynolds saw the Volta Project in terms of a business opportunity (i.e. an opportunity to make money[6]). On its part, the Government of Ghana, perceived the Volta Project as a potential source of cheap power, a necessary vehicle for the rapid industrialisation envisaged by Nkrumah (or Ghana) in the early post-colonial years.

As introduced briefly in Chapter Six, the Volta River Project was instituted in 1962 under a large number of agreements between the Government of Ghana (acting on behalf of the VRA) and a variety of other parties, including Valco, its shareholders, Kaiser Aluminium and Chemical Corporation and Reynolds Metals Company, and various other lenders of finance for the project. Although arguably, accounting and financial management issues are implicated in almost all the provisions of the agreements, for illustrative purposes, this section concentrates on the power rate and escalation, the tolling contract, power availability and supply , and the duration of the contract[7]. Not only are these the most obvious accounting and financial management related issues in the agreements but they also constitute the major sources of contention in later periods of the agreements[8]. As a respondent in the Finance Department noted:

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[6] Perhaps what Kaiser and Reynolds saw in the Volta River Project was the potential of a "cash cow", as the strategic management literature will put it (see Lush and Lush, 1987). This is evidenced by the outcomes of the 1962 negotiations and further supported by the posture taken by Valco in subsequent negotiations of the power rate.

[7] Zartman (1975) observes that it is not uncommon to find negotiations involving different yet related issues. Indeed, the 1962 agreements constitute a perfect exemplar of Zartman's observation.

[8] Miller (1994, p. 2) contends that as a social and institutional practice, "accounting ... intrudes onto the terrains occupied by other bodies of expertise, whether these terrains be those of the engineer, the lawyer, the economists or the business strategist".

> ... all the provisions of the Master Agreement affect what we do in the Finance Department... As I said earlier, you can't understand our systems as an outsider without taking the history of VRA into consideration... The financial controls are solid but if you consider the history behind the control systems, particularly the issue of pricing, you will find that VRA, and in fact Ghana as a whole is losing a lot... the systems don't reveal this... There are weaknesses which are not revealed by the systems (interview no. 24).

This section therefore provides an interpretation of the various agreements and argues that the Master Agreements (taken as a whole) tantamount to neo-colonialism and therefore contradicted Ghana'ssocio-economic development policies at the time these agreements were signed[9]. Since the power rate and escalation, the tolling agreement, the availability of power supply and the duration of the contract are intertwined, they are critically evaluated here in a collective fashion as opposed to individually. The collective evaluation of these agreements is further supported by the view of a respondent in the following:

> ...the agreement with Valco are closely related to one another... you can't understand one in isolation... each of them constrain the Authority's financial management in one way or the other... (interview no. 26).

As indicated in Chapter Six, prior to the formation of Valco (i.e. following an intensive negotiation), an agreement was signed providing that Valco should pay 2.625 mills per kwh for power supplied by the Authority, with no provision for escalation. While this rate compared quite well to what was charged by other power companies in other parts of the world, "in a 50-year agreement, this is today difficult to understand" (Sims and Casely-Hayford 1986, p. 20). This argument is shared by a respondent when he noted:

> ... the contract with Valco, especially in terms of the power rate was not bad at the time the agreement was signed... Today's conditions are totally different from what prevailed at the time... This is the main source of the conflict between economic rationality and the [constraining] legal commitments which the Authority has to ... [deal].. with today... (interview no. 27).

The above view suggests that in the early 1960s, these agreements were quite consistent with Strauss' (1978) contention that, negotiations between parties will only lead to agreements and contracts if 'both' parties are 'satisfied' with the outcome(s) at a point in time (see also Gulliver,

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[9] The criticism here is not based on the short term effects but rather the long term implications of the agreements.

1979, Moxon, 1969). Indeed, that no provision was made for escalation in a contract that was expected to span a fifty year window is certainly difficult to understand and casts doubt on whether the Government of Ghana was 'satisfied' with this outcome. Sims and Casely-Hayford (1986) argue that the deliberate lack of provision for escalation could be traced to two main factors. Firstly, the rate of inflation in the United States which strongly influenced the agreement on the power rate, was 1% per annum in the ten years prior to the agreement. Thus, it was naïvely assumed that this was a fair basis for predicting the future of the world economy. Secondly, Sims and Casely-Hayford observe that no provision was made for escalation partly because "Kaiser and Reynolds only had to offer VRA sufficient revenue to cover its foreign exchange debt service, enough to ensure the project could proceed" (p. 20). Graham (1982, p. 195) identifies this as the "trickiest" part of the negotiations which preceded the agreement on the power rate because the Western capitalists were able to strike a deal which will "keep the smelter rate low while ensuring enough income for the VRA to repay the loans". At 2.265 mills per kwh therefore, VRA was "literally agreeing to subsidise the Valco tariff with revenue from other Ghanaian consumers" (Graham, ibid). As Table 7.1 depicts, this turned out to be the reality (Table 7.1 present the rates in local currency to enable a comparison between the foreign and local rates)[10]. Some organisational participants were very critical of the current rate structure. For example, a respondent in the Finance Department noted:

> ...looking at the rates we charge to our customers, you will find that Valco pays the lowest rate... But it also takes the bulk of our output... There have been instances where Valco paid ... rate[s] below cost of production... In such a case we have to rely on other customers, ... [whose consumption is]... insignificant relative to Valco, to meet the required return of 8%... it is a clear case of neo-colonialism. But I don't think the Nkrumah Government ever... intended this to happen.. (interview no. 17).

A similar view is offered by another respondent in an Area Office:

[10] The conversion was based on the official exchange rate and carried out by the VRA Finance Department.

Average Power Price per KWH of Energy Sold per Customer 1966-1983. Source: Sims and Casely-Hayford (1985, p. 24)

Years	E. C. G.	The Mines	Akosombo Textiles	Akosombo Township	Valco	C. E. B.
	Average Price Cedi/kwh	Average Price Cedi/kwh	Average Price Cedi/kwh	Average Price Cedi/kwh	Average Price Cedi/kwh	Average Price Cedi/kwh
1966	.007055	.006769	-	.022889	.002101	-
1967	.007350	.006519	-	.007540	.002502	-
1968	.007367	.006859	.017650	.007882	.002679	-
1969	.007623	.006970	.017079	.006632	.002679	-
1970	.008044	.007105	.008776	.007306	.002678	-
1971	.007981	.007448	.007567	.007356	.002732	-
1972	.008070	.007601	.008326	.009250	.003394	.011774
1973	.008064	.007675	.008377	.009244	.003194	.009584
1974	.007515	.008219	.009954	.009197	.003162	.009391
1975	.008111	.008806	.008845	.009209	.003196	.009131
1976	.009762	.010617	.011767	.009197	.005175	.009927
1977	.012882	.013812	.014976	.030281	.004974	.011234
1978	.016824	.0204072	.020950	.015982	.008300	.024504
1979	.022228	.034823	.042888	.026668	.012827	.040992
1980	.044068	.065827	.091138	.047918	.013191	.039595
1981	.076708	.089457	.127487	.075097	.015886	.039479
1982	.079217	.092006	.271406	.077107	.013750	.058664
1983	.095709	.100443	.290725	.093101	.017855	.226430

> ...Take the example of Akosombo Textiles... [which] pays the highest rate... this is a locally owned textile company which the Government should be encouraging... I think Valco should begin to appreciate that the Ghana Government has done a lot... There are no more uncertainties, and Valco should be made to pay a competitive rate like any other of our customers.... Definitely, it is a clear case of neo-colonialism (interview no. 03).

After fixing the power rate at 2.625 mills per kwh without escalation for a period of thirty years, the Government of Ghana also agreed under the initial Power Contract, that in the first three years of its start up the Authority would make constantly available to Valco 370 of the 615 megawatts of power generated from the Akosombo Dam. This was to be increased in accordance with an agreed formula which also allowed Valco to share pro-rata with other VRA customers (excluding essential power to the Hospitals etc.), in the event of a force majeure, after the completion of the Kpong hydroelectric project. Perhaps the most striking issue in the power supply agreement (which also reflects strongly on the Authority's financial management) is that the Authority is now severely limited in terms of the amount of power it can supply to non-Valco customers[11]. As a respondent in an Area Office noted:

> ... the contracts impact on our financial management today because we are obliged to supply a substantial proportion of our output for the lowest possible price... this is clearly illogical in finance and accounting terms... we could get more for the amount sold to Valco under the contract. What makes the contract even more painful is the fact that in periods of low output we sell to Valco and import from La Cote d'Ivoire to supplement our domestic consumers. We sell to Valco for about one-fifth of what we pay to import power from La Cote d'Ivoire... It just wouldn't make sense to a financial expert unless he knows the history of VRA and how it is constraining the organisation today... (interview no. 15).

Because of this guaranteed low-cost power, Valco has been very fast in expanding its plant to a capacity far greater than what Nkrumah would have envisaged at the time of signing the contract (Document no. 4). Thus by 1970, Valco was consuming 74% of VRA's energy (Graham, 1982, p. 204). To put Valco's power consumption in perspective, Appendix 7.1 shows the power consumption per class of customer from 1966 to 1984. Except in situations of force

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[11] In the early 1980s this became a major issue because the Authority could now export power to neighbouring Togo, Benin and Ivory Coast for 40-50 mills/kwh. Thus the opportunity cost of supplying to Valco and indeed sticking to the limit set in the agreement in terms of power supply to non-Valco customers meant that the Authority was in real terms losing more (financially) than what was originally envisaged.

majeure, the contract provided that:

> ... the Authority observes and performs its obligations under the Power Contract and will make good to Valco all losses, damages, costs, expenses or otherwise howsoever incurred by Valco by reason of any default on the part of the Authority (Volta River Project-Statement, p. 40).

A senior staff member in an Area Office noted:

> ...if Valco could cut down on its consumption, we will not be under pressure from the current growth in the domestic load... But that is the last they would do...(interview no. 19).

To safeguard these agreements, the contract further provided that Valco should have a representative on the Board of VRA and that subsequent changes in Ghana law would not affect the provisions of the Act. As some commentators argue, effectively the contract froze Ghana law as at 1962, a clear case of neo-colonialism (see Graham, 1982). In addition, the contract explicitly provided that no confederation with West African states (such as ECOWAS[12] formed in 1975) could impair the immunities granted to Valco. Most respondents were critical of Valco's representation on the Authority's Board. For example, an interviewee in the Corporate Planning and Programming Department remarked:

> ...we all know that the issue of pricing of electricity is the most important and difficult aspect of our financial management... Any Board level decision on pricing must involve Valco as well... And Valco's representative will always seek to challenge changes suggested based on rational economics or financial management principles... Perhaps what the Authority needs is a major customer in the form of a company that would guarantee it would consume up to three-quarters or even half of what Valco currently buys from us... the rest would cater for the domestic [load] growth... I feel that our strategic planning for the long term should be heading in this direction... (interview no. 29).

It is the view of this thesis that the financial management difficulties that arise principally because of the stringent requirements of the Master Agreement suggest that the systems at the VRA do live up to the description of "deficient" or "inadequate" in some sense because they ostensibly seek to legitimise rather than challenge the restrictions posed by the Master Agreement. Having provided an interpretive construction of the Master Agreement and argued that it tantamount to neo-colonialism, especially in terms of the restrictions it poses on VRA's

[12] Acronym for the Economic Community of West African States

current financial management process, the next section provides a discussion of how changes in local and global economic trends have further created more financial management problems at VRA over the years. The section also elaborates upon the negotiation processes of handling these financial management and accounting difficulties.

7.3.1 Subsequent Changes in the World Economy and the Effects on VRA's Financial Management

While those who are sympathetic to the 1962 agreements (see Moxon, 1969, 1984) rest their case on the conditions which prevailed at the time of the contract, this study contends that there is no excuse for a contract that perceives the economy of the world as a static phenomenon. Indeed, on the political spectrum, Ghana itself had just experienced a major change from colonialism to self-government, with other African countries still agitating for political independence, this arguably was sufficient indication of major changes to occur in the world economy.

Negotiation theorists observe that changes in structural conditions induced by factors external to the outcomes of previous negotiations are always sources of contention and are mostly resolved or effectively handled through further negotiations (see Strauss et al, 1963, 1964; Strauss, 1978; Zartman, 1978). Since the contract was signed in 1962, there have been significant changes in the economies of not only the Western World but also the developing economies with decisive consequences for the terms on which power or energy in general is sold. Perhaps these changes are exemplified by the major oil price shocks of the 1970s which resulted in significant price increases in all forms of energy. In addition, local inflation has also resulted in a significant increase in cost of electricity production in Ghana. With such predominant changes globally, conventional managerial accounting wisdom (grounded in neoclassical economic theory) suggests that an organisation "operating on sound commercial lines" (i.e. VRA) should respond by adjusting its pricing systems to reflect the rising cost of production (and indeed, the increasing demand levels resulting from Valco's expansion policies) if it is to survive. This argument is supported by the following quote from a confidential document produced by the Authority's consultants:

> Where capital and operating costs of electric power generation are rising, and where there is demand pressure for more generating capacity, there is increasing pressure to

raise power rates to the aluminium smelters. Old power supply arrangements are breaking down as a result. There is less captive power available for new smelters than in the past. No electricity or other authority is willing to sign a power contract without any escalation clauses at all, as was done, for example in the U.K. and Australia[13]. Few countries offer rates below cost in order to attract smelters, in doing so New Zealand and Brazil, ... prove to be the exceptions rather than the rule. ... The level of rates and the escalation of rates is increasingly becoming tied to average generating cost. This is true of contracts in Japan, Australia, the United States and much of Europe. Moreover, in several countries it is the opportunity cost, not the historical cost, which is used to determine the generating cost of an authority[14] (Document no. 1, Commodities Research Unit Ltd).

However, in the case of the Authority, it was not possible to change power rates charged to its major customer to reflect these rising costs of production because this would have amounted to a breach of the 1962 Agreements. This is a clear illustration of 'technical' accounting and finance wisdom being constrained by prior socio-political or legal commitments. On this issue a senior staff member in the Finance Department remarked:

> ... until the 1962 agreements are significantly changed, I don't think rational accounting and financial management principles can be applied to our pricing structure... We do our accounting and finance taking the 1962 agreements as constraints to work within... No, you can't challenge them, they are legally binding on the Authority. The only possible option in seeking to change the provisions of the contract is through negotiation... and we are obliged to supply electricity to Valco (interview no. 46).

Although the provision obliging the Authority to provide constant minimum electricity to Valco posed no difficulties at the time of the 1962 Agreements because Ghana's domestic electricity load could still be met, the simultaneous growth in Valco's requirements resulting from its expansion over the years in the face of the ever increasing domestic load, certainly shows the lack of foresight (on the part of the Nkrumah Government) in this agreement. With such global and local changes threatening the operations of the Authority in the early 1970s, management began to reflect on the constraining nature of the 1962 agreements and sought a renegotiation

[13] It was argued by the Authority's consultants that power supply contracts with smelters in the U.K. and Australia were of a shorter duration than that signed between Valco and VRA.

[14] The examples of India where hydro-electric power is valued at the costs of more expensive thermal generated power and Quebec where the potential revenue from exporting power to the United States strongly influences the determination of the cost of power, are quite well known in the industry. Such methods have the effect of raising the cost and for that matter the related tariff rates.

with Valco, although the contract did not explicitly provide for such renegotiations. Organisational participants maintained that negotiation was the only possible mode of changing the rate charged to Valco because:

> ...we could not unilaterally change the agreement. Our Department had to provide sufficient financial information, particularly on cost of production and comparative rates for smelters all over the world, to justify the need for changes in Valco's rate (interview no. 24).

Another respondent noted:

> ... it was only possible through negotiations...although the negotiations were meant to change a legal document, it was, in fact, a battle between VRA Accounting and Finance Mangers and their counterparts at Valco... Proposals and counter-proposals were all based on financial calculations carried out by our Department (interview no. 25).

Organisational participants further maintained that although justifying their proposals on the basis of "rational" accounting and finance principles was necessary to clarify their position, they were always certain that Valco would not out-rightly accept their proposal or counter-proposal without any changes. As a senior staff member noted:

> ...the negotiations were about what is rational financial management and accounting versus legal commitments... Our position was mainly based on rational accounting and finance while Valco always drew our attention to the legality of the contract.. (interview no. 07).

An additional ground for renegotiation was the 1969 Loan Agreement with the World Bank which provided that:

> the borrower (VRA) shall take such reasonable action as may be required, including the adjustment from time to time of its rates for supply of power (IBRD-VRA Agreement, 1969).

Commenting on the World Bank's position on the needfor renegotiation from time to time, a senior staff member observed:

> ...the Bank foresaw the difficulties that the Authority was heading towards... the position it took in the 1969 Loan agreement gave the Authority further grounds to seek a renegotiation of the power rate with Valco... when our financial difficulties became clear to all... (interview no. 07).

With the financial difficulties emanating from the low power rate charged to Valco, the

Authority was obliged to take reasonable action as required by the World Bank. Thus full-fledged renegotiations of the power rate began in mid 1972. This culminated in an adjustment of power rates to 2.75 mills per kwh in October 1972 and later increased to 3.25 mills per kwh in March 1973. Valco also agreed to adjust the power rate thereafter and by 1980, the power rate for supply to Valco stood at 4.75 mills per kwh. Despite these increase in rates, Valco still remained one of the smelters with the lowest power cost in the world. This perception is evidenced by the following quote:

> In the original agreements the power rate was fixed at 2.625 mills/kwh. The rate has increased in subsequent renegotiation, till it now stands at 5.6 mills/kwh. This is still below the average rate paid by aluminium smelters in the Western World and compares with the equivalent of 28 mills/kwh paid by the ordinary Ghanaian consumer as of February 1983 (Document no. 5, Memo from Technical Team to P.N.D.C. Co-ordinating Secretary, October 27, 1983).

Perhaps a way around the Authority's financial crisis was to increase its sale to other customers. This was not a possibility because the guaranteed power to Valco left the Authority with less than 40% of power available for its other customers by the early 1980s (see Graham, 1982). The Authority therefore continued to seek negotiation with Valco to adjust the power rate.

This process of renegotiation went on without any agreements until a military coup was staged in Ghana on 31 December 1981 and this saw the coming to power of the radical nationalist Provisional National Defence Council (the P.N.D.C. government). In its first year in office, one of the major issues which the military junta vowed to tackle was the severe 'hardship' posed by the 1962 agreements on VRA and the Government and people of Ghana. Sims and Casely-Hayford (1986) summarised the situation which preceded the intervention by the military junta in 1981 in the following words:

> The Volta River Authority ... had insufficient revenue to increase the total power supply, which was necessary because of the large amount of energy committed to Valco. In addition, the Valco power tariff was so low that several international lending agencies felt that the provision of concessionary funds to the Volta River Authority could be considered, indirectly, as a subsidy to Valco.... International and domestic power comparisons, the financial difficulties of Volta River Authority and, of course, the Ghana economy, made Valco's low power rate increasingly visible (p. 25).

The next section discusses how the military junta took over from the Authority's accountants and lawyers to negotiate the price for the power supplied to the Authority's major customer. As will be seen, what is traditionally considered the accountant's responsibility required more than an accountant to set things 'right'. As a senior staff member noted:

> ...when the going got tough, we had to step aside for the military government to negotiate with Valco... Our accountants and financial Managers provided the government with necessary financial information to justify the need for renegotiation and what could be deemed appropriate... The government then took it up with Valco... (interview no. 07).

The next section therefore provides a detailed discussion of the stages in the renegotiation process with Valco and the outcomes of these renegotiations. Drawing partly from this section, it is then argued in the penultimate section that the technical façade which was presented to the researcher by organisational actors in Chapter Four is only a smokescreen (or façade) rendering invisible (or masking) the outcomes of these negotiations although they purport otherwise (i.e. are portrayed as conventional accounting and financial management techniques developed as part of the routine organisational control processes).

7.3.2 Negotiating the Price of Power: An Evidence of Political Interference

Thus far the discussion in this chapter has sought to provide a background understanding of how and why negotiations underpin pricing of the Authority's products. In this section, a detailed illustration of the 'actual' negotiation process is presented drawing upon the model discussed in Chapter Five. The rationale of this section is to illustrate how negotiation is central to what organisational actors perceived as the most important financial management issue at the VRA. In pursuing this objective, the discussion in this chapter also contributes to the strand of critical accounting literature which represents accounting as a conflict-creating, conflict-enhancing and conflict-resolving human artefact (see Argyris, 1952; Cooper, 1983; Gallhofer and Haslam, 1991; Lehman and Tinker, 1987; Tinker, 1985). To achieve this objective the section elaborates upon the 1982-1984 negotiations between the P.N.D.C. government (a military junta acting on behalf of the Authority) and Valco. Although most of the agreements signed in 1962 were reopened for negotiations during this period, for illustrative purposes, this section limits its scope to the power rate renegotiation, not only because it is overwhelmingly perceived by organisational actors as the most important and contentious accounting and financial management issue at VRA but also it characterises the overall relations between the Authority and its major customer. Nevertheless, where other agreements are directly impacting on the power rate negotiation, they are accordingly brought into the discussion. As indicated in Chapter Five, negotiations quite often involve more than one 'round'[15] of talks, and the 1982-84 power rate negotiation was no exception because it involved five 'rounds' starting from December 1982. This section is therefore structured in the same sequence as the 'actual' negotiation rounds.

7.3.2.1 First Round of Negotiations: Legal Commitments Versus Accounting and Financial Management Logic

Arguably, in a world that is driven by economic rationality, renegotiation processes are usually expected to be initiated by the party who experiences an unfair economic burden placed on it as a result of agreements arrived at in earlier negotiations (see Gulliver, 1979). Only on rare occasions will a process of renegotiation be initiated by a party that is not unfavourably affected by changes in economic or other conditions which render the outcomes of prior negotiations burdensome on the negotiating opponent.

Although the original 1962 Agreements made no provision for renegotiation, later amendments in the early 1970s made renegotiation possible (*supra*). Thus burdened by financial difficulties, emanating from unfavourable economic changes globally, the VRA proposed to Valco, in February 1981, an alternative mode (one that was grounded in conventional accounting and financial management wisdom) of determining rates for power supplied to Valco. In reply to this invitation, Valco proposed to pay the Authority a one-off lump sum and contemplated deleting the escalation provisions (which were made in the 1970s renegotiations), and substituting these with "specific price increases at specific dates". However, Valco's proposal went on to state:

> To the extent that VRA has or will incur cost increases in supplying the 370 MW of power from Akosombo and the 30 MW of power from Kpong, Valco agrees that it will bear its appropriate share of such cost increases. The present power contract attempts to do this and to the extent the contract provisions are inadequate to do so, Valco is prepared to consider appropriate amendments... However, Valco does not agree that mere increase in the cost of obtaining power from other sources justify discarding the present contractual arrangements... Valco fully recognise that without Akosombo it

[15] Conventionally a round refers to the identifiable stages in a negotiation process. Quite often cut-off points for negotiation rounds are determined by reference to instances where disagreements lead to impasse for some time or where negotiators retire to analyze the information received from other parties.

could not exist. A dependable source of power is necessary, and Valco is grateful for the care and attention VRA devotes to this task. Our profits are a matter of record and are by no means exorbitant or unreasonable. Any profits determined on a historical basis (which overstate profits on a constant currency basis) are shared with the Government of Ghana in the form of taxes.... (Document 2, Letter from Valco Resident President, May 1, 1981, see Appendix 7.2).

Valco'srejection of sharing costs which were generated from sources other than Akosombo and Kpong, was an indirect posture against any thermal sources which was envisaged (by the Authority) as a supplement for the hydro-electric power. This position was purely financially motivated because it is well known in the electricity industry that power generated from thermal sources involve higher cost of generation than from hydro sources.

Valco's proposal was immediately followed by a Position Paper from the VRA stating that "beginning of 1st January 1981, Valco should pay all the energy it consumes at a rate for convenience described as "VRA's desired price" that will be equivalent to 0.001 multiplied by price of a metric ton of Canadian virgin ingot CIF European Part (so called "Alcan price") per kilowatt hour" (see Document no. 3)[16]. The alternative proposed by the Authority in its Position Paper also sought an escalation formula which would match Valco's rate to similar smelters in the United States. In particular, the Authority proposed that at any point in time, Valco's rate should not be less than 80% of rates paid by American smelters of the same capacity and size. In suggesting these rates to Valco, the Authority's Position Paper stated its objectives as seeking rates which:

i) approximate to VRA's long run marginal cost of supply;
ii) produce sufficient revenues to meet minimum levels of financial performance standards which the Authority is obliged to adhere to; and in particular earn a return of 7.3%[17] on its revalued average equity in accordance with a covenant to the IBRD.
ii) reflect relative cost of service to each customer.
In specific terms, the Authority desired:
i) to have rates to Valco fall within the medium range of power rates charged to

[16] Clearly, the proposed power rate in VRA's Position Paper reflects the strong influence that Ontario Hydro, in Canada, has on the organisation. As will be seen, the proposal was made rather hastily by using Ontario Hydro as a standard. Later, negotiations between the Government and Valco saw the Government rejecting the inclusion of the "Alcan price" in the determination of the world average price of power to smelters.

[17] Although organisational actors and some documents provide that the required rate of return for the investment in VRA is 8% this document provided 7.3% as indicated in the quote.

aluminium companies in countries considered to be competitive with Ghana;
ii) to enable Valco to continue to be in business in Ghana (Document no. 3).

The Position Paper also provided detailed cost information and a projection of expected revenue at various levels of activity on the basis of the proposed rates. To support its demands, the Authority further indicated that changes were proposed for other customers including a 39.6% , 11.2%, and 20% increase in rates to E.C.G., the Mines, and Akosombo (all local customers). In the case of C.E.B., it was proposed that rates will increase effective from April 1982 from 14 mills/kwh to 25 mills/kwh until March 1985[18].

Negotiations with Valco "dragged" on for just over eighteen months without any agreements until the radical nationalist P.N.D.C. government intervened with a letter dated 7th December 1982, inviting Valco for an arm's length renegotiation of the 1962 power agreements (see Appendix 7.3). Major concerns which were raised in the letter include:

> The combined effects of the concessions to Valco, particularly the low and uneconomic rates it pays for services provided to it, deprive Ghana of an adequate rate of return on her investments. This situation puts in serious jeopardy Ghana's ability to continue to provide the services upon which Valco is dependent... However justified these concessions might have been at the time they were granted, the evidence of Valco's commercial success over the years has demonstrated that the concessions are no longer needed to guarantee Valco's profitability.... The economic and other assumptions on which the agreements were predicated are no longer valid. Changes in world financial and economic circumstances have rendered the present terms of the Valco Agreements inadequate and largely unacceptable to the Government and people of Ghana... The restraints imposed by the Agreements on Ghana's legislative competence particularly in fiscal matters are now generally rejected and inadmissible.... (Letter from P.N.D.C. Co-ordinating Secretary to Valco, December 7, 1982).

Clearly the letter reveals that the P.N.D.C. government was determined to unilaterally reject the 1962 Agreements which had guided the relations between Valco and the VRA for almost fifteen years[19]. The P.N.D.C. Co-ordinating Secretary however, concluded his letter with an invitation

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[18] Rates for C. E. B are subject to three yearly negotiations.

[19] Perhaps only a military regime could take such a 'bold' stance because the Authority had prepared and provided the Government with a statement indicating the consequences of a unilateral decision to terminate the 1962 agreements. These ranged from total loss of revenue from Valco (estimated at US $16 million per annum) to the cancellation of loans from most of the financiers (see Appendix 7.4).

of Valco for a fair renegotiation of the power rates and other related agreements (see Appendix 7.3).

Following the acceptance of Valco to engage in an arm's length negotiation with the military government, the P.N.D.C. appointed a team of financial and legal experts[20] to represent the Government of Ghana in the negotiation with Valco (*supra)*. Thus the first round of negotiation between the Government Team and Valco commenced on February 14, 1983 but went into an impasse just after five days. During this first round of negotiations, the Government of Ghana had two principal objectives, first to move Valco towards normalisation (i.e. rates which reflect global economic trends) and secondly to achieve its objective on the basis of "principled negotiations rather than threats of crude horse-trading" (Document no. 4). Accordingly, the Government Team commenced the negotiation with a basic price for guaranteed power of 22 mills per kilowatt hour, with a suitable index[21]. In addition, the government team also presented a paper which outlined Ghana's position on a wide range of issues, including the tolling fee agreements, the Water Agreement, and taxation and other fiscal issues[22]. On their part, the Valco Team started their negotiation with a conditional offer of 8 mills per kilowatt hour, which according to commentators, in the context of a set of other proposals, would have had the effect of decreasing the income of both Valco and the Government compared to what was obtainable in the current contract, while substantially increasing the returns to the parent company (i.e. through taxation and transfer pricing implications, see Sims and Casely-Hayford, 1986).

After a 'careful' evaluation of the financial implications of Valco's proposal, the Government Team treated it with utter contempt arguing that Valco did not mean to engage in a serious arm's

[20] Chaired by Professor Akilakpa Sawyerr who later became the Vice-Chancellor of the University of Ghana.

[21] 22 mills/kwh represented the government's initial estimation of the average power rates paid by aluminum smelters in the world. The Government negotiating strategy noted however, that this might not be achieved but that the variance should not be significant enough as to render the Government's efforts fruitless.

[22] Since this study is principally concerned with the VRA, the thrust of the discussion here is centred around those agreements which fall within the jurisdiction of the Authority. For instance, the Government's position on the Water Agreement is not addressed here because that was a contract signed between the Ghana Water and Sewerage Corporation and Valco and a discussion of it is beyond the scope of this study.

length negotiation with the Government (Document no. 4). On the power rate in particular, the Government Team observed an attempt by Valco to link this item to an important element in the national economic policy (i.e. the setting of Ghana's currency exchange rate). But the proposal neither met the demand of the situation at the time (i.e. the global economic trend) nor the principles which the Government had laid down in its confidential negotiation strategy. Since Valco's proposal was met with contempt by the Government Team, there was a break-down in negotiations and the Government Team saw the need for Valco to seek the consent of their shareholders in the United States to address, in earnest, the issues raised by the Government Team in this first round of negotiation (i.e. the new order of normalisation).

7.3.2.2 Negotiation and Accounting and Finance in Action: Round Two

The impasse which started on February 19, dragged on for two months with negotiations resuming on April 13. This round saw a marked improvement in the normalisation process, culminating into the signing of a "Memorandum of Agreement on Water Rates, Port and Wharfage Dues and Property Rates" (Document no. 4). This agreement provided for what was perceived by the Government of Ghana as a substantial increase in rates to be paid by Valco for water, property and the dues of wharfage facilities. As a respondent in the Transmissions Department noted:

> ... the government took advantage of VRA's negotiations with Valco to ensure certain changes in the contract which did not even concern the VRA (interview no. 44).

Like the power rate, these rates were to be paid in U.S. dollars, however, the Memorandum of Agreement differed significantly from the power rate agreement on the grounds that the agreed rates were to be indexed by the U.S. Wholesale Price Index.

Although no significant agreement was reached regarding the power rate (which is the major concern in this section of the thesis), in principle, it was agreed that the new rate would bear a significant relation to the average price of power worldwide, as opposed to linking it to Valco's profitability[23] (as per Valco's original position). The second round was a very instrumental

[23] The Government Team rejected any proposal which sought to link the power rate to Valco'sprofitability principally because of the gross transfer pricing abuse which Valco had been engaged in during the first decade and half of the contract.

stage in the negotiation process because it demonstrated the extent of Valco's seriousness in the process (Document no. 4). Although Valco had agreed in principle to the Government's demand to link the power rate to the world average, an important source of contention was the negotiation on how the pricing formula should be determined. A Former employee of the Authority who worked in the Finance Department for some number[24] of years remarked:

> Valco did not want to accept the formula that was suggested by our Department to the Government Team... They were avoiding any commitments at this stage. Our suggested formula was meant to resolve the issue once and for all... (interview no. 56).

Agreement on the pricing formula, clearly required high level of technical financial advice which both teams wanted to address only after consultation. Thus the second round unlike the first, ended (on April 19) on a positive note for the Government of Ghana and VRA.

7.3.2.3 Third Round of Negotiation: Things Fall Apart Again

For negotiations to go on 'smoothly', parties have to honour their short term commitments (i.e. agreements which were reached during the preceding round of negotiations) (see Gulliver, 1979). However, round three started off on May 18, 1983 with Valco backing down on the conclusions reached at the close of the second round of negotiations. This action on the part of the Valco Team made progress rather impossible, from the perspective of the Government Team. This led to an impasse, with the Government Team seeking to terminate the process for consultation[25]. The Government Team alleged that the collapse of the negotiations (right at the beginning of round three) was essentially due to Valco's refusal to stick to the agreements reached on the power rate in round two. Valco returned to its earlier stance which emphasized the "legality of the contract" with little attention given to the financial or economic rationality of the agreement. However, after persistent pressure and adjournments, the Valco Team eventually made a proposal which, in spite of having an appearance of an advance of earlier proposals, has been described by some commentators as, in reality worse than an earlier proposal in the second round (see Sims and Casely-Hayford, 1986). With such serious difficulties resulting from the Valco Team's intransigence on the power rate issue, it meant that

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[24] The actual length of service with the Authority is left out to protect the respondent's identity.

[25] The theory in negotiation literature (see Gulliver, 1979) that parties are most likely to blame their opponents for an impasse characterised the whole of round three of the negotiations.

very little progress could be achieved in the third round. As one of the documents provided to the researcher maintains:

> from the first day of the round Valco was seen to move away from the principle of relating power price to weighted world average rate, and more or less stated that they would only agree to a rate which secured their profitability. The chairman of the Government Team pointed out that this repudiated progress made in the second round and asked the Valco Team to reconsider this move, particularly in the light of the 1983 Budget which had been read in the interval between rounds and which solved Valco's most obvious problem, the exchange rate (Document no. 4).

During the adjournment, Professor Sawyerr, the Chairman of the Ghana Team invited the leader of the Valco negotiating team to an informal discussion. The outcome of their private discussion supported the theory that informal relations do play a significant role during periods of impasse in negotiation processes (see Strauss, 1978) because in the case of the power rate negotiation, it led to some progress, (although the Government Team perceived the progress as not significant enough). Following this private discussion, the Valco Team agreed to link the power rate to the world average as reached in the second round and accordingly put forward a proposal on the formula for calculating the power rate. Although the formula proposed by Valco was rather tricky and devoid of figures (i.e. figures indicating how the rate will be subject to escalation in future), it was nevertheless the most significant progress made in the third round. A senior staff member observed that:

> ...Valco deliberately did not suggest any figures because any counter proposal to the financial computations VRA had provided was going to be had to justify on the principles of finance or accounting logic... So, I will say Valco was buying time at this stage... I knew they couldn't make any commitments without referring to their financial experts in America (interview no. 32).

As would be expected, the Government Team rejected Valco's proposal on the grounds that it was unclear because no evaluation of the formula could be carried out "without knowing the figures contemplated by Valco" (Document no. 4)[26]. Valco resorted to its "lacklustre attitude" and the Chairman of the Government Team wrote on May 26 to the leader of the Valco Team indicating its concern about Valco's attitude towards the negotiation process. Valco's response produced a proposal which was unacceptable to the Government because it included a power

[26] i.e. What power rate to include and at what weight (if any) in the determination of the average.

rate which effectively was the same as what was provided in the current agreements and even would result in lower rate in the long run. Perhaps what made the proposal more "striking in its inadequacy" was that it was made on the explicit assumption that:

> a. Present taxation, duty and tolling fee arrangements, on which the Government had proposed major changes, would remain the same.
> b. The Valco fund[27] which had in some years yielded sums of $11 million, $9 million and $2 million, would be fixed as $0.5 million annual payment, and
> c. Valco was to be entitled to an exchange rate fixed at C29.975=U.S. $1.00, as well as benefits of further adjustment of the cedi/dollar rate (Document no. 4).

The "gross inconsistency" exhibited by Valco in this round, saw its termination without any major agreements (Ghanaian Times, February 21, 1983). The round however, ended in a dramatic style because there were press releases of each team blaming the other for the collapse of the talks (see Ghanaian Times February 21, 1983 and Daily Graphic February 21, 1983). The impasse was not expected to last long, though, because "a joint press release signed by leaders of the two delegations announced that VALCO representatives have undertaken to respond to Ghana'sproposals within three weeks after consulting their shareholders. Thereafter, a date will be agreed upon for the resumption of talks" (Daily Graphic, February 23, 1983).

7.3.2.4 Fourth Round of Negotiation: Stitching the Pieces Together

Since round three ended without any significant progress[28], the Government Team continued to put pressure on Valco to set a date for the next round of negotiations. On its part, the Valco Team insisted that the negotiations were called off by the Government Team and wrote a formal letter to the P.N.D.C. Co-ordinating Secretary pointing out their concern about the Government Team's attitude towards the negotiations. The P.N.D.C. Government, however, indicated its endorsement of the action taken by the Government Team maintaining that the posture taken by Valco (towards the end of the previous round) meant no progress could be made. In a statement issued on June 29, 1983, the Government announced that:

> ...while Government had consistently indicated its preference for the path of negotiation

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[27] A trust fund which has provided financial support to most Ghanaian schools and other Non-Governmental Organisations in the past. It is not the purpose of this thesis is discuss this fund since it concerns the Ghana Government and Valco. Indeed, VRA is not a party to that contract.

[28] From the point of view of the Government Team.

> it had also emphasized that it had no intention of engaging in talks which, while giving the appearance of movement show no promise of yielding an outcome acceptable to the people of Ghana. Nor has it any intention of agreeing to terms, that will continue to harm the fundamental interests of the people of Ghana..... Ghana could no longer tolerate a situation which she gives major concessions to an established and extremely prosperous company, only to enable that company to subsidise its even more prosperous parent companies (Document no. 5).

Perhaps pressurised by the 'threats' from the Government of Ghana, in a letter dated July 5, 1983, Valco expressed their preparedness to resume negotiations on the power rate. The letter stated that after much consideration of the issue, "it should be possible for us at resumed negotiations to reach a settlement satisfactory to the Government as well as Valco" (Letter from Valco to P. N. D. C Co-ordinating Secretary, July 5, 1983). Clearly, the termination of the negotiations by the Government Team in round three was 'paying off'. Indeed, it showed the Government's determination to ensure significant changes to the poweragreement. On this, a respondent in the Finance Department remarked:

> ...at this stage Valco knew the government was determined to insists on the economic rationality of the contract... No, an insistence on complete economic rationality would have caused a break-down in the negotiations and might have resulted in litigation...The government still respected the legal implications of the contract (interview no. 32).

At the commencement of the fourth round of negotiations, Valco organised a press conference and for the first time in the history of the agreement, the Deputy Managing Director admitted publicly that the power rate which Valco paid was unfair in terms of economic rationality and that Valco was prepared to negotiate with VRA for a rate which reflects the "changes which have occurred since the 1970s" (Document no. 4). The acknowledgment that Valco's rate was unfair shifted the balance of power in the negotiation process in favour of the Government Team and the Government in response to Valco's invitation for the resumption of negotiations, indicated that it would only send the Team to negotiate if Valco made a "reasonable" proposal. A proposal that reflects economic rationality or conventional financial management logic.

To arrive at such a "reasonable" proposal, senior management of Valco met the P.N.D.C. Co-ordinating Secretary and asked for informal discussion involving a small group of government representatives and Valco on various matters relating to the negotiations. Valco indicated that such a meeting was necessary for the formulation of a proposal for negotiation. This informal meeting was held in the Ghana High Commission in London on August 22, 1983 and Valco formulated a proposal in which "Valco's base power rate would bear a close relationship to average price of power delivered to smelters around the world which is estimated at 15 mills/kwh in mid 1983" (Document no. 5). Another important aspect of Valco's proposal was its provision for escalation. It provided that "50% of the base power rate will remain fixed while the other 50% would escalate with changes in the price of metal [aluminum]" (Document no. 5).

Following the informal discussion in London, Valco made fresh proposals for consideration by the Government and called for formal negotiations with the Government Team in December 1983. Thus the fourth round of negotiations formally commenced on January 18, 1984. In this round, the Government's objective was to seek clarification of the proposals which resulted from the informal discussion held in London. To enable them to submit counter-proposals, the Government Team called for an adjournment of the negotiation in round four. Thus the round ended with a significant progress although still awaiting the counter-proposal from the Government Team.

7.3.2.5 Fifth Round of Negotiation: Drive Towards Consensus

The main thrust of the negotiation in the fifth round concerned the process of determining the average price of aluminum to be included in the formula suggested by Valco in the preceding round of negotiation. In defense of its offer of 15 mills/kwh, Valco indicated that many of the high power cost smelters had closed down (especially in Japan) and it was their view that 15 mills/kwh should apply when the metal price reached 80 c/Ib[29]. Rejecting the 15 mills/kwh proposed by Valco, the Government Team maintained that a power rate which reflects the world average should be ascertained first and then escalation of this rate be tied to the average price of aluminum. While the Government Team insisted that the high power cost (and indeed high capacity) smelters mostly located in Japan be included in the determination of the average, they argued strongly against the inclusion of what was described as "smelters with captive power" plants (e.g. Alcan smelters in Canada which were receiving power at 3 mills/kwh). This is evidenced in the following quote from an interim report from the Government Team to the P.N.D.C. Government:

[29] At this time the price of aluminum on the LME was 73 c/Ib and still rising (Sims and Casely-Hayford, 1986).

> We are glad Valco have finally accepted that the power rate to be paid by them should be based on the average of the rates paid by other smelters worldwide... In discussing the principle of averaging the rates, Valco say that the average should be a weighted one and that the actual operating capacities of the smelters are the weights that should be used. We do agree that this position is fair, and in fact have held it ever since we proposed the general principle.... However, we disagree with Valco on a major point. In working up the average Valco include those smelters that are supplied with power from power plants owned by the smelters. For example they include power rates for the Alcan-owned smelters which are supplied with power from plants also wholly owned by Alcan... (Document no. 7).

By excluding smelters in the Soviet bloc and the Alcan smelters, the Government Team (re)computed the average power rate at 18.0 mills/kwh (see Appendix 7.5). Having determined the average power rate to smelters in the world, the Government proposed that:

> From March 1, 1983 Valco should pay for power at the rate of 18 mills/kwh. Seventy-five per cent of this rate is to escalate on the first day of each quarter thereafter, with the percentage change in the average monthly cash settlement price of primary aluminum metal of 99.5% purity as quoted on the London Metal Exchange (LME) over the preceding quarter. Escalation is to be calculated from a base of the average LME price of aluminum for March 1983. The power rate will be reviewed at intervals of not more than 5 years (Document no. 6).

On the determination of the average price of aluminum, the Government of Ghana preferred the average on the LME because, "it was instantly available, a price unsusceptible to easy manipulation, and was determined according to consistent criteria" (Sims and Casely-Hayford, 1986, p. 37). Perhaps the choice of LME by the Government of Ghana is supported by the following quote:

> There can be no doubt that the LME provided the single most important price within the aluminum market and is the best single indicator of the state of the industry and of expectations of future developments (Metal Bulletin, November 1, 1983, p. 9).

The most obvious alternative to the LME, as Valco argued, was the industry's 10K price, a price calculated from annual submissions to the US Securities and Exchange Commission by the main North American aluminum producers. This basis was rejected by the Government Team because a major problem found with the industry's 10K was that, it was "not available until some months after the year end" (Sims and Casely-Hayford, 1986, p. 37). At this stage the Government of Ghana was determined to secure an agreement which would not be "clouded with too many manipulable variables" (interview no. 56). Indeed, the Government's negotiating strategy[30] for the 1982-84 negotiations indicated that:

> if this approach of electric energy pricing does not find the approval of Valco, VRA may need the *political determination[31] of the Government of Ghana* to implement the required increase in the price of electric energy to the VALCO smelter (emphasis added, Document no. 6).

After further deliberations, the two negotiating teams agreed on an average power price of 17 mills/kwh to be related to the price of aluminum on the LME. In trying to determine how the average power rate was to escalate in relation to the metal price, the Valco Team argued "convincingly" (see Sims and Casely-Hayford, 1986, p. 39), that most power rates were not fully escalated and that a fair basis of escalating Valco's rates should reflect this. Thus following negotiations on how the power rate should escalate, it was agreed between the two parties (indeed after consultation with their principals) that "the actual power price was to move up and down with only two-thirds of the percentage movement in the LME metal price" (Sims and Casely-Hayford, 1986, p. 38). Thus the final negotiated pricing formula for power supplied to Valco was:

Power Rate $= \{17- ([2760-x]/275)\}1/3 + \{17-([2760-x]/275)\}2/3*y/73.$

Where:

x = the GWH supplied to Valco in a year,

y = the preceding six months average LME price in US cents/Ib.

and 2760 = sufficient power for Valco to run four potlines (the negotiated guaranteed power i.e. 315 MW).

275 = an agreed constant for indexing the variation in power supply to Valco.

73 = Base price of metal on LME at the time of the agreement.

For example, assuming Valco has enough power to operate the four potlines, 2760 -x will be

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[30] The Government's negotiating strategy was a highly confidential document which was strongly guarded from Valco and thus was unknown to the people of Ghana who were, arguably, supposedly the beneficiaries of the outcome of the negotiation.

[31] Political determination refers to the Government's determination to unilaterally vary the contract if Valco were not ready to engage in an arm's length negotiation.

zero and the rate payable will be 17.47 mills if the average price of aluminum on LME was 76c/Ib.

In addition, a floor rate (i.e. below which the rate will not be allowed to drop) of 10 mills per kwh was agreed.

Notice that the above formula is the same as;

{1/3 Base Power Rate + (2/3 Base Power Rate * LME/80)}

provided to the researcher in the discussion of the technical façade in Chapter Four.

where:

80 is substituted for 73 because of subsequent increases in metal price on the LME after 1984.

LME is equal to y in the formula above.

and Base Power Rate = 17 - ([2760-x]/275).

This section has provided an extensive coverage of pricing, perceived by organisational actors as the most important and most contentious financial management issue in the management process of the organisation. After linking the above discussion to the concern about deficiency, the thesis then provides a discussion of how the pricing structure relates to overhead allocation procedures at VRA.

7.3.2.6 Summary of the Negotiation Process and the Concern about Deficiency

The discussion in this section has illustrated how legal commitments constrained conventional accounting and financial management prescriptions in the context of the VRA. While the discussion shows significant effort on the part of VRA to adhere to financial management and accounting logic, the historical circumstances of the organisation currently impacts strongly upon the financial management process and renders the systems deficient or inadequate in sone sense. In particular, the pricing to Valco still shows that the systems at the Authority can still be improved. Equally important in arriving at this conclusion about the deficiency of VRA's systems is the strong degree of political interference in what is perceived as the most important financial management issue in the Authority.

7.4.0 Overhead Allocation: Link with the Authority's Pricing Structure

In Chapter Four it was indicated by organisational actors that the Authority will seek to design and implement an Activity Based Costing and Budgeting system if the impending Power Sector Restructuring Programme is eventually implemented. Such a switch from traditional overhead allocation system (which is currently in place), they argue, is necessary because of the need for "improvement" in the Authority's overhead allocation system (interview no. 24).

While organisational actors recognised the conceptual simplicity of the current cost accumulation and overhead allocation system as a major advantage, they maintained that the competition which is imminent with the deregulation (i.e. the impending Power Sector Restructuring Programme) suggests the need for an improved overhead allocation system (interview no. 24). An important problem which was identified with the current system is the fact that it focuses exclusively on product costing with very little reference to the Authority's different categories of customers. This is inconsistent with not only conventional managerial accounting wisdom that overhead allocation is central to organisational pricing structure but with current practices in the electricity industry (interview no. 24, see also Lal, 1982). For instance, in his review of overhead allocation in the American electricity industry, Lal (1982, p. 28) observes:

> the major purpose of cost service study [overhead allocation] is to determine as far as practicable the total cost incurred by the utility in supplying various customers and so to provide a cost basis to aid in the setting of the charge out rates for each customer.

It was noted by organisational actors that such a conventional understanding of the rationale for overhead allocation does not apply in the context of the VRA because of the Authority's prior commitments. The current overhead allocation system is designed to conform with the Authority's negotiated pricingstructure. This is captured by a staff member in the Economics Division in the following quote:

> ... because of the history and nature of VRA, we don't have much influence on the prices that we charge our customers. In the case of Valco, the major customer, we rely on negotiations as you will find out... similarly with C. E. B. For the ordinary Ghanaian consumer, we propose rates which are subject to Government approval. So even though we do allocate overheads, what we can do with it in terms of pricing is severely restricted. I think the main problem with VRA is the external influence on our pricing.... but we are expected to run our operations on commercial basis. Sometimes I personally find these requirements contradictory. ... (interview no. 27).

A similar view is shared by another respondent in the Budget Division who noted that:

> ... our current system of overhead allocation does not provide any basis for pricing to the various customers... pricing is ... determined through negotiations ... (interview no. 46).

The views expressed by organisational actors in the above quotes are inconsistent with the recommendations of the International Energy Agency, in terms of the relationship between cost accumulation or overhead allocation and pricing structure (as noted in Chapter Four). As a respondent noted:

> ...we do not allocate cost to determine the rates to charge our customers[32],... ideally that is what should happen, but we are faced with too many constrains.... May be when we switch to ABC, the current deficiencies in the system will become apparent... (interview no. 27).

Another respondent in the same Department remarked:

> ... one of the major problems or deficiencies of the current [financial management] systems is illustrated by our overhead allocation process...Traditionally, overhead allocation is important for rate setting... But in our case, because of the external influence on our rate setting, I just can't explain the purpose of the process... That is why some of us favour the introduction of ABC... It is long overdue... (interview no.26).

Although the switch to ABC was thought irrelevant by some respondents, especially in terms of its usefulness with regards to pricing of the Authority's product, they did not discount the possibility that ABC could be a useful tool in future negotiations in terms of clarifying the "cost drivers" of the Authority. Some organisational participants noted that with the implementation of ABC VRA might be able to justify, during future negotiations with Valco, specific cost which are caused by activities geared towards supply of electricity to Valco. They maintained that this will strengthen their negotiation strategy in future negotiations with Valco in particular. It was also observed that the switch to ABC could also shift the balance of power in favour of

[32] Although the respondent did not share the actual process of allocating cost to the various categories of customers, his perception of the process was, nevertheless, clarified as noted in the above citation.

the Authority in its negotiations with the Government for domestic rates. As a respondent observed:

> ... the introduction of ABC will result in an improvement in our cost accumulation and overhead allocation and this will provide more accurate information for future negotiations with Valco and the Government... (interview no. 24).

Another respondent remarked:

> ...to engage in effective negotiation, the Authority needs better accounting and financial management systems. We need systems which can persuade Valco and the Government about our cost of production.... ABC has a major role to play in this... (interview no. 27).

A similar view is shared by an Area Finance Officer:

> ... in negotiating with Valco, we rely on our Finance Department to provide information for the process... ABC may enhance this process (interview no. 15)

In addition to the perceived role of ABC in influencing the balance of power in future negotiations, it was observed that the competition that is likely to be introduced by the impending Power Sector Restructuring Programme will require cost efficiency and the use of ABC could contribute to overhead cost reduction by bringing to the attention of management, how various activities cause cost[33].

Among the major concerns of some organisational actors in trying to switch to Activity Based Costing and Budgeting is the contract with Valco which significantly restricts the Authority in its current pricing structure. They maintained that while ABC might provide better cost information than the current system, it is unlikely that Valco will allow cost information gathered from ABC to influence their negotiations with the Authority. As a respondent remarked:

> I don't think ABC is going to perform any miracles... the important constrains posed by Valco cannot be taken away by ABC... may be we can say to Valco that we have a better way of determining cost.... this may justify future rate increases [negotiations].... but I don'tthink ABC is the only answer to the Authority's problems... Even in America, ABC still has problems... Valco may decide not to accept any cost information based on ABC because it is still not well established... (interview no. 03).

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[33] These are the argument put forward by Johnson and Kaplan (1987) at the Harvard Business School, and it is possible that this are infiltrating to their student practitioners.

Some organisational actors still saw the merits of ABC even if it could not shift the balance of power in favour of the Authority during negotiations with Valco by noting that since the Authority's products would not be differentiated by inherent characteristics, to remain competitive after deregulation, the Authority will have to "adopt strategies focused at the customer and be prepared to engage in a price war should there be a need" (interview no. 24). It is the view of this thesis that to pursue these strategies requires a rigorous costing system such as ABC, but it is important for the Authority to note that "change for its sake can be counter productive" (Bellis-Jones and Develin, 1992, p. 25).

The discussion in this section shows the extent of dissatisfaction among organisational actors with the current overhead allocation system. This suggests some form of deficiency, especially in terms of the relevance of overhead allocation for price setting. While the staff members of the Finance Department are highly enthusiastic about the Authority's desire to switch from traditional costing to ABC, the contract with Valco still poses a major limitation to this strategy. Thus whether the switch from the current system to ABC will result in a perceived "improvement" in the Authority's systems will, to a large extent, depend upon how Valco responds or reacts to cost information generated from ABC in future negotiations. An investigation into the Authority's cost allocation and pricing systems after the implementation of ABC will be a major contribution to the accounting literature because it will not only be a pioneering case of implementing ABC in a third world organisational context but also in an organisation whose unique historical circumstances present major constraints for a successful implementation of ABC (see Cooper, 1987 for the conditions required for a successful switch to ABC).

7.5.0 Financial Reporting and Accountability : Beyond the Authority's Accounting Policies

At the core of public sector operations is the overarching requirement to remain accountable to a variety of interests groups in society (see Wanna et al, 1992). Although contemporary public sector organisations are diverse, an important instrument in fulfilling the accountability responsibility of these organisations is the annual financial report (Likierman, 1992, 10). While the Authority's accounting policies presented by organisational actors, in Chapter Four, were perceived as technically efficient because they approximate "best practice", this section demonstrates that financial reporting policies are contested through an interpretive construction of the Authority's reporting system. In the conventional literature, the objectives of financial reporting in public sector organisations such as the VRA are summarised as follows:

> 1. Compliance and Stewardship:
> a. To provide authorities and users that there has been conformity with legal and other mandatory requirements in the organisation's use of its resources.
> 2. Accountability and retrospective reporting:
> a. to monitor performance and evaluate management, providing a basis for looking at trends over time, achievement against published objectives and comparison with other similar organisations (if any).
> b. to enable outsiders to have cost information on goods and services provided, and to enable them to assess efficiency and effectiveness in the use of the resources made available to the organisation.
> 3. Planning and authorization information:
> a. to provide a basis for planning for future policy and activities.
> b. to provide supporting information for further funds to be authorised.
> 4. Viability:
> a. to help readers judge whether the organisation can continue to provide goods and services in the future.
> 5. Public relations:
> a. to give the organisation the opportunity to put forward a statement of its achievements to influential users, employees, and the public.
> 6. Source of facts and figures:
> a. to provide information for the wide range of interests groups who want to find out about the organisation (Likierman, 1992, p. 12).

To evaluate the financial reporting function at the Authority, these six elements of objectives suggested by Likierman (1992) were discussed with staff members of various Departments in the Authority. Arguably, the objectives identified by Likierman (1992) above involve a number of identifiable interest groups who can be classified under, the citizenry, the providers of funds, the sector ministry, customers, employees, and in some cases the tax department. Macve (1981, p.) observes that:

> Recognition of the variety of user needs and of conflicts between different interest and different rights leads to the view that reaching agreement on the form and content of financial statements is as much a political process, a search for compromise between different parties, as it is a search for the methods which are technically best.

Following Macve (1981) it could be argued that the Authority's claim of seeking "best practices" (in the technical sense) suggests that there is no friction between the technical and the political processes in its financial reporting. Of the various objectives of financial reporting identified above, the staff members readily agreed that the requirements of their lenders (i.e. the international financial institutions) were of paramount importance in their financial reporting practices. This suggests that the Authority's interpretive construction of "best practice" is that which is acceptable to its financiers. For instance, the constant revaluation of the Authority's assets is a requirement of the World Bank to ensure that the 8% performance target is not based on historical costs of net fixed assets. As a respondent in the Financial Accounting Division stated:

> ...for the World Bank's required return on Fixed Assets to be meaningful, a revaluation of our fixed assets is always necessary... and we do it every five years... this is a condition from the World Bank... I personally agree with them because the inflation rate is too high in Ghana.... the Bank thought about this before insisting on that conditionality... (interview no. 16).

Most organisational participants maintained that emphasizing the requirements of financiers was not an evidence of deficiency in their view because it provided the Authority some strength in negotiating with the financiers for funding of its projects. As a respondent in the Finance Department remarked:

> ... I see the emphasis on the World Bank's financial management requirements to be good for our negotiations with them... That is why we are able to secure loans directly from them. Most organisations in Ghana can't get what VRA is getting from the World Bank and the other banks who lend to us... (interview no. 31).

Another respondent at the same session shared this view:

> ... by constantly striving to meet the financial management and accounting requirements of the Banks... it puts us in a better negotiating position... that is why we have such an excellent relation with the World Bank in particular... I think it would have been more difficult if the other Banks had requirements which are totally different from that of the World Bank...Sometimes what the other Banks require are basically the same as the World Bank's requirement so... so we are not always left in a conflict situation... (interview no. 31).

The respondent continued to explain:

> ... when you need funding for any of the Authority's projects, you have to justify to the World Bank and other Banks that you are capable of managing the funds that you are asking for... there is no better way of proving this than compliance with their financial management and accounting requirements... that is why we have a strong negotiating position with the banks... (interview no. 31).

The cumulative effect of compliance with the World Bank's revaluation requirement over the years, is a Revaluation Surplus[34] Account which represented about 89% of total shareholders funds as at 1992. This is because the Revaluation Reserve which increases after every revaluation exercise because of high Ghanaian inflation rate[35] is not distributable. While the compliance with international accounting standards (a further requirement of the Bank) does not permit the reduction or distribution of the balance on this account except on the disposal of the assets or on the declaration of a bonus share issue, the management of the Authority have consistently expressed their concern about the magnitude of this Surplus to its consultants (Coopers &Lybrand and Deloitte & Touche). On this, a respondent in the Finance Department noted:

> ...the revaluation surplus in our accounts makes the overall picture rather odd... we have always suggested ways of dealing with it... I will like to see it capitalised... (interview no. 16).

Although other international financial institutions such as European Development Bank, European Investment Bank, Arab Bank for Economic Development, and Commonwealth Development Corporation ratify this exercise (i.e. the five-yearly revaluation) by extending loans to the Authority, there was an overwhelming perception by organisational actors and, to some extent, the Ghanaian public that asset revaluation at the VRA was a sheer waste of money spent on consultants[36]. Concerns about revaluation and power rates were the dominant themes among respondents from the Ghanaian public who answered the question asking for their overall comments on VRA's management process in the survey. For example, a member of the Ghanaian public remarked:

> revaluation or what ever it is called, is nonsense... they should stop it and use the money to reduce our electricity bills (survey respondent no. 128).

Another respondent in a different region shared the same view:

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[34] The Revaluation Surplus Account is the equivalent of the Revaluation Reserve in British accounting and Company Law.

[35] Estimated at 45% by the end of 1996 (see Public Agenda, 12-18 March, 1997, p. 7).

[36] It must be mentioned, though, that the researcher's assistants spent quite some time explaining the concept of revaluation to the respondents, majority of whom were 'illiterate'. It was an experience that the researcher missed out on because of funding difficulties. Nonetheless, the objective of seeking their opinion was accomplished.

they are wasting money on revaluation and consultants and charging us more for electricity...and Valco should go (survey respondent no. 63).

The above view was also similar to a respondent who remarked:

> VRA staff are just charging us more and spending the money on motors [bikes] for their employees... (survey respondent no. 196).

Other users who have also had significant influence on the Authority's financial reporting practices are the Minerals Commission and the Ghana Public Services Commission. Not only are these groups represented on the Board of Directors of the Authority, but they also constantly monitor the Authority's financial performance. Although the interest of the average Ghanaian consumer of electricity was argued (by organisational actors) to be represented by the Ministry of Mines and Energy[37], there seem to be some strong dissatisfaction from the Ghanaian public about the Authority's apparent disregard for their opinions. For instance, in reaction to a recent proposal for a 300% increase in local tariffs, an Executive Member of the Consumers' Association remarked:

> We shall vehemently oppose the 300 percent proposed increase in the electricity tariff which the VRA and the ECG have been talking about. We do not see any reason whatsoever for them to talk about increasing tariffs.... I want to ask Mr Addo to tell the Ghanaian public whose business it is that he is running[38]. Is it his private business he established or he is talking about state property? He should be told that the VRA project is the people's project and that the $300m that was used in constructing the project was paid for by the people.... We'll protest (Public Agenda, March 24-30, 1997, p. 6-7).

Although the above quote shows the extent of the Executive Member's ignorance about how the Volta Project was financed, it nonetheless demonstrates his fury and the extent to which the ordinary electricity consumer in Ghana is dissatisfied with the VRA's detachment from the Ghanaian public. Further resentments are exemplified by the following quote relating to the proposed 300% increase in domestic rates:

> The only 'public' discussion of this fundamental change of policy was a two day

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[37] Which is the Government Department representing domestic consumers in negotiations with the VRA.

[38] Referring to one of the Directors of VRA who had discussed the need for the 300% increase in a television interview and made reference to VRA's strategic "business".

conference at the exclusive Labadi Beach Hotel[39] last August (Public Agenda, March 3-9, 1997, p. 6).

While the Ghanaian public has been dormant over the years in terms of pressing its interests regarding the way the Authority is run, the impending restructuring of the electricity sector seems to suggests that this regime is nearing its end[40]. In terms of specific disclosures that the Ghanaian public wants to see in the Authority's accounts, environmental issues were accorded primacy. Although the Authority redesignated its Real Estate Department as Real Estate and Environment Department in 1994, environmental policies are still not a significant aspect of the Authority's operations (see Chapter Eight for a detailed discussion). For instance, the 1994 Annual Report disclosed that the Authority had spent C20 million on pipe borne water for the people of Amedeka, one of the villages relocated as a result of the construction of the dam, and C46 million on afforestation, against an annual net profit of C2,821 million. While staff of the Authority cited the lack of interest by the Ghanaian public in the Authority's published account as a possible reason for their insignificance in the accountability picture, they maintained that a copy of the Annual reports is always readily available for public use in the Authority's library.

Perhaps the high illiteracy rate could be a factor responsible for the lack of interest, as the survey results showed. Most respondents indicated that they would have read and tried to understand the Authority's Annual Reports if they were literate. Of the few respondents (21%)[41] who indicated that they were literate, lack of time, financial/economic difficulties, and fear of political forces were often cited for the inability to read the Authority's Annual Reports. Interestingly, just 4.76% of the people in this category thought the Authority's Annual Reports were not important.

7.6.0 The Deficiency Claim: A Reinterpretation

An evaluation of the descriptive technical procedures provided in Chapter Four led to a

[39] A five star hotel which the ordinary Ghanaian can only dream about.

[40] This is further discussed in Chapter Eight when the financial systems are reinterpreted against the notion of development, the principal reason for establishing the Authority.

[41] Those who had studied beyond School Certificate/General Certificate of Education 'Ordinary'level. Basic spreadsheet analysis was used to make sense of the survey results, see Chapter Three.

preliminary conclusion that (from a technical-rational perspective), the study of the VRA casts major doubts on empirical grounds for the claim that third world countries generally have "deficient" public sector accounting and financial management systems. From the discussion of the historical and institutional forces which provide an explication of how these systems arise in the Authority (provided in this chapter), it could be argued that the deficiency claim might be reinterpreted in another sense, one that goes beyond the technical procedures currently in place for financial control purposes. Section two of this chapter provided a critical interpretation of the 1962 agreements which have a significant impact on the Authority's 'current' financial operations. It was argued that the negotiations which preceded these agreements (and indeed the resultant agreements) were instruments of neo-colonialism. Although subsequent renegotiations of these agreements in the early 1980s showed marked 'improvement' from the perspective of the Government and people of Ghana, that the price paid by Valco is still an insignificant proportion of what the ordinary Ghanaian consumer pays suggests that these agreements can still be improved[42].

While it is convincing that any accounting system, as a "social and institutional practice" (see Hopwood and Miller, 1994), has a tendency to render particular patterns of organisational processes more visible than others, such an attribute of accounting has not been without significant criticism from the accounting academic community (see Burchell et al, 1980; Chua, 1986; Ciancanelli et al, 1990; Cooper and Sherer, 1984; Dillard, 1991; Hines, 1988a; 1989; Hopper and Armstrong, 1991; Hopwood, 1987; Laughlin, 1987; Puxty, 1993; Tinker, 1985). Although it was extremely hard to describe the accounting and financial management systems at the VRA as "deficient" in a technical sense, by lifting the veil to determine the particular pattern(s) of visibility which is rendered by the Authority's accounting systems, this thesis argues that the deficiency claim can be supported in another sense. Such an argument derives from the interpretive construction of how the Authority's accounting and financial management systems seek to legitimise rather than challenge the accounting and finance (il)logic in prior organisational contracts which were designed to favour a multinational corporation which remains the Authority's major customer. Perhaps the introduction of ABC which is currently envisaged would help challenge and unmask this vital issue. Rather than pricing its products

[42] Chapter Eight provides views on what changes organisational actors want to be made when the contract is fully renegotiated with Valco for the commencement of the second period of the 1962 agreement.

with reference to cost of production and possibly a mark-up[43], it was demonstrated that the Authority constantly engages in negotiation, which remains the only option in its pricing to the major customer.[44] This is not to suggest that organisational decisions based on rational or conventional processes are superior to other modes of decision making (such as negotiation), rather the argument is that in its efforts to legitimise and protect the outcome of prior negotiations, the Authority's pricing and overhead allocation systems do not only defy basic conventional accounting wisdom (which was purported in Chapter Four) but also contradict the systems of an organisation which is supposedly running its "operations on sound commercial lines".

In addition, although organisational actors indicated in Chapter Four that the Authority constantly seeks "best practice" in its financial reporting, it has been argued in this chapter that the Authority's interpretive construction of "best practice" is synonymous to a financial reporting practice which is grossly skewed in favour of its financial providers. Chapter Seven further demonstrated that in spite of the contention that financial reporting practices are contested terrains because of the existence of various users or constituencies, the requirement of the World Bank and other international financial institutions are accorded paramount importance in determining the acceptability of particular accounting policies by the management of the Authority. While the apparent lack of interest on the part of the Ghanaian public in the Authority's financial operations was partly responsible for this practice, recent policy changes by the Authority (i.e. major domestic price increases) has vitalised the interest of the ordinary Ghanaian in the Authority's financial operations.

In sum, while it was argued in Chapter Four that the technical procedures which supposedly guide financial decision making at the Authority do not live up to the description as "deficient" as argued in the current third world public sector accounting literature, the discussion in this chapter reveals that the systems only serve as a technical façade for legitimising and protecting contracts and agreements which in some cases (e.g. tariff setting and overhead allocation) defy

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[43] As implied in not only conventional managerial accounting practice but also supported by empirical evidence in the electricity industry in the U.S. (see Lal, 1982).

[44] Although the P. N. D. C. Government threatened, in the early 1980s to unilaterally terminate the 1962 agreements.

conventional accounting and finance explanations. Perhaps, the multinational corporation (i.e. Valco) and the international financial institutions are partly responsible for the nature of the Authority's accounting and financial management systems, since they seek to perpetuate these systems[45]. Most organisational actors shared this conclusion with the researcher especially whenever they had no immediate explanation for any of their accounting practices which was challenged by the researcher.

7.7.0 Chapter Summary and Conclusions

This chapter has sought to investigate how the technical accounting and financial management systems arise at the VRA. The chapter accomplishes this through an historical analysis and an examination of some aspects of the institutional framework within which the Authority operates. The rationale for such an exercise was to avoid a naïve rejection of the claim that third world countries generally have deficient public sector accounting and financial management systems solely on the basis of the technical procedures presented to the researcher in Chapter Four. Chapter Seven reveals that underlying the technical façade is the strong role of negotiation of conventional accounting and financial management issues such as product pricing. The chapter also illustrated how the negotiation of accounting and financial management issues have been subjected to strong political interference over the years. In particular it provides a detailed description of how the Authority and the Ghana Government engaged in negotiation with Valco (the Authority's major customer) on the determination of power rate charged to Valco and related issues.

It was demonstrated that while one of the conventional justifications offered for overhead allocation is centred on the need for calculation of product profitability and pricing (see Johnson and Kaplan, 1987; Lal, 1982), in the case of VRA, overhead allocation is a posterior exercise which seeks to support a predetermined pricing structure. Perhaps such a justification serves a ritualistic purpose as supported by the quote from an organisational participant in section 7.4.0. The chapter further demonstrated that the financial reporting practices of the Authority are skewed in favour of meeting the requirements of international financial institutions which are their principal source of project funding. While this has been the practice over the years, the recent upsurge in interest among the Ghanaian public, in the way the Authority runs its

[45] See Chapter Five for the view of this thesis on institutionalism as an interpretive theory.

operations, suggests the imminence of tension and a possible demise of such a practice.

By going behind the technical façade presented in Chapter Four to investigate how the accounting and financial management systems arise, this chapter concludes that the deficiency claim might be supported in another sense. Such a conclusion is based on the researcher's interpretive construction of how the systems render particular patterns of organisational processes more visible than others and the rationale underlying such practices.

Chapter Eight

Understanding VRA's Accounting and Financial Management Systems in the Context of Socioeconomic Development

8.1.0 Introduction

Chapters Four and Seven presented interpretive constructions of the Authority's accounting and financial management systems from technical and socio-historical perspectives respectively. The discussions in these chapters resulted in two principal conclusions on the claim that third world countries have deficient public sector accounting and financial management systems. Whilst from a technical perspective, the deficiency claim was significantly questioned in the context of the VRA, by taking into consideration how these systems arise, Chapter Seven cautioned that the deficiency claim might be supported in another sense. In Chapter Eight the accounting and financial management systems are interpreted (or understood) in the context of socioeconomic development, the principal rationale for the establishment of the VRA. The central argument of Chapter Eight is that the effectiveness of accounting systems could be established by reference to the extent to which they reflect the purpose(s) for which the organisation concerned was created[1]. This argument derives from the contention (grounded in institutional theoretical orientation) that accounting systems might be designed in a particular way because of the need to legitimise organisational operations to 'external' constituencies even if it sometimes implies a contradiction with the organisation's fundamental purpose(s) (see Alam and Lawrence, 1994; Hoque and Hopper, 1996; Scapens, 1994). Since by definition, the Volta Project was established to promote socioeconomic development in Ghana, the chapter provides a discussion of the diverse postwar conceptualisations of development and argues for a perspective of development

[1] This view is also consistent with Enthoven's (1977) contention that no single set of accounting systems can effectively serve the needs of all organisational types and for that matter all countries (see also Briston, 1978; Perera, 1989; Hove, 1990). To further his argument, Enthoven (1977) distinguishes between private enterprise accounting, governmental accounting, and national (or macro) accounting. Each of these modes of accounting are suitable for particular situations and their effectiveness, he argues, could only be judged with reference to the intended purpose of the entity concerned (i.e. any attempts to adjudicate accounting systems should recognise the contextual nature of such systems). Such an argument is further predicated on the view that different organisations seek to accomplish different purposes in society.

which goes beyond the dominant economistic view to incorporate the "sociological" (people-centredness) and "ecological" (environmental) aspects of development. Such a perspective is then employed as a framework for further and deeper understanding of the Authority's accounting and financial management systems in this chapter.

Chapter Eight is organised into seven sections as follows: the next section explicates the notion of development which guides the interpretive construction of the Authority's accounting and financial management systems in this chapter. It provides a discussion of the divergent postwar notions of development and argues for a 'broader' understanding of the concept. Section three examines the Authority's accounting and financial management systems in the context of the national and rural electrification programmes which are currently pursued by the Ghana Government. Rural electrification is perceived as an important aspect of any development effort (see Brown, 1980; Saunders, et al, 1978; World Bank, 1975) and its promotion should, arguably, be reflected in the Authority's accounting and financial management systems, if indeed, they live up to the Authority's principal purpose of promoting socioeconomic development in Ghana. The section further demonstrates that the success of the programme depends, to a large extent, on the nature of VRA's tariff structure. The fourth section provides a discussion of the Authority's environmental obligations and how these were disregarded or ignored by the accounting and financial management systems until fairly recently. Section five examines the extent to which the Authority's systems will meet the challenges facing the future operations of the organisation. In particular, the section examines the Authority's accounting and financial management systems in the context of the impending Power Sector Restructuring Programme in Ghana. While the penultimate section draws upon the discussions in the previous sections to reinterpret the claim that third world countries have deficient public sector accounting and financial management systems the final section provides a summary and conclusion of the chapter.

8.2.0 The Concept of Development: Beyond Economic Reductionism.

Development is an umbrella concept whose meaning, scope and understanding depend to a very large extent on the lens through which it is viewed. With the proliferation of postwar theoretical 'paradigms' in development studies, diverging interpretations and conceptualisations of development currently exist in the literature (see Auty, 1995; Hettne, 1990; Kay, 1989; Larrain, 1989). Auty (1995, p. 3) observes that a broad distinction can be made between orthodox and structuralist perspectives of development. An important commonality between both perspectives, Auty argues, is their emphasis (or reliance) on economic and quantifiable indicators such as Gross Domestic Product, real per capita income, etc. as standards for measuring development (Auty, 1995, p. 3; see also Rostow, 1990). These conceptualisations (i.e. structuralist and orthodox perspectives) of development which became widespread in the early postwar period, project development as "a rapid and sustained rise in real output per head and attendant shift in the technological, economic, and demographic characteristics of society" (Mabogunje, 1980, p. 36)[2]. While such a view has remained the dominant postwar perspective of development (see Mabogunje, 1980; Munasinghe, 1993), recent writings indicate that it is also possible to understand development from "sociological" (see Cernea, 1993) and "ecological" (see Rees, 1993) perspectives. This view is captured by Brandt (1980, p. 48) when he observes that:

> development never will be and can never be defined to universal satisfaction. It refers to broadly speaking, social and economic progress, and people will always have different views about what is desirable. Certainly development must mean improvement in living conditions, for which economic growth and industrialisation are essential. But if there is no attention to the quality of growth and to social change one cannot speak of development.

Brandt (1980) not only goes on to argue that development is a socially constructed phenomenon but also suggests that historical factors in the immediate postwar years have tended to grossly favour the economistic view (see also Cernea, 1993; Rees, 1993). However, in the last quarter of this century, the dominant economistic view has come under serious attack from the Marxist, Neo-Marxist, poststructuralist and post-modernist (i.e. radical) theorisations of development (see Booth, 1985; Cernea, 1993; Corbridge, 1990; Hettne, 1990; Munasinghe, 1993; Rees, 1993; Serageldin, 1993). For instance, arguing from an ecological standpoint, Rees (1993) suggests that the once-held economic view of natural resources as free goods is partially responsible for such ecological problems as the depletion of the ozone layer and the "green house effect". In a

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[2] Steer and Lutz (1993, p. 21) argue that an important reason for "an excessive focus on the economic aspects of development is because it is easier to measure what is transacted in the market place than what is not.... What to measure and where to measure it is intuitive, and the numeraire (the common unit of account) enabling such aggregation is straightforward - money". Steer and Lutz concluded that "such easy calculations are not available for many other aspects of development, especially social and environmental issues".

similar fashion, Cernea (1993) contends that, as a socially constructed phenomenon, development should be "people-centred" by reflecting on the way people conduct their lives (e.g. "enrichment" of their culture) and concludes that the dominant economistic perspective is inadequate in that regard.

With a proliferation of diverse conceptualisations of development in recent times, Landell-Mills (1993) argues that the most important problem facing contemporary third world leaders is the choice of 'appropriate' development perspectives[3]. Responding to Landell-Mills (1993) in his review of the major problems constraining socioeconomic development efforts in third world countries, Serageldin (1993) proposes that for contemporary developing countries to break the trap of underdevelopment, they would need to understand the concept in terms of "sustainable development", a term which was brought into common use by the Brundtland Commission in 1987. The Commission defined "sustainable development" as 'change' in socioeconomic living conditions which "meets the need of the present generation without compromising the needs of future generations" (cf. Serageldin, 1993, p. 7). Various interpretations of the Commission's definition have given rise to different dimensions of the concept of "sustainable development" (see World Resources, 1992-93, p. 1-15). For instance, in his presentation at the Fourth Pacific Islands Conference of Leaders, Halapua (1993, p. 60) observed that "sustainable development":

> is used with a range of interpretations by policy makers, planners, and opinion makers. But there appear to be two common interpretations of the concept. The first one is a concern with environmentally responsible development, especially with the management of the environmental resources and their interactions with population and economic activity in any given time. The other major interpretation is a concern with economic growth that can be sustained over time at a given level of population and environmental quality.

It could be argued that the Commission's definition is predicated on the notion that current decisions should not impair the prospects for maintaining or improving future living standards. This further "implies that our economic systems should be managed so that we live off the dividends of our resources, while maintaining and improving the asset base" (Repetto, 1986, p.

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[3] See Killick (1978) for a detailed discussion of the divergent economic policies (and notions of development) which Ghana attempted to pursue during the immediate post-colonial years.

15-16). To ensure this, organisational and national decision making mechanisms such as accounting could play a leading role. Therefore to gain a further understanding of VRA's accounting and financial management systems in this chapter, a conceptual understanding of development consistent with the Brundtland Commission's notion of "sustainable development" is drawn upon. Such a framework provides an unchartered terrain for investigating the extent to which the Authority's social and environmental obligations are served by the existing accounting and financial management systems. The choice of "sustainable development" as the conceptual base for the investigation in this chapter is partly informed by Kennedy (1968, in Steer and Lutz, 1993, p. 20) when he points out the major criticism of the dominant economistic view in the following illuminating passage:

> The gross domestic national product does not allow for the health of our children, the quality of their eduction, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages; the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage; neither our wisdom nor our learning; neither our compassion nor our devotion to our country; *it measures everything, in short, except that which makes life worthwhile* (emphasis added).

Kennedy is arguing, in the above quote, that life is too complex an entity to be understood solely in terms of economic measurements or numbers[4]. Vital issues concerning political, spiritual, and social aspects of humanity are not captured by the dominant economistic perspective simply because they are apparently not quantifiable (see Waring, 1989; 1995). However, there is evidence in the literature that contemporary developing countries cannot get over the "harsh" conditions of (socioeconomic) underdevelopment without strong politico-sociocultural advancement (see Halapua, 1992; Leftwich, 1994; Serageldin, 1993). For instance, Leftwich (1994) contends that "good" governance is a necessary condition for third world development, and criticised the World Bank, International Monetary Fund and other Western donor nations for "supporting 'bad' governance and cruelly authoritarian regimes"[5] (p. 366). To further his

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[4] While this thesis agrees with Kennedy's argument, it nonetheless maintains that the mechanisms which are responsible for producing the "numbers" (including accounting systems) are human artifacts and can therefore be (re)designed to reflect these important issues about humanity, albeit in an inexhaustive sense.

[5] But such important issues as governance are not given any consideration in the dominant economistic conceptualisation of development.

argument, Leftwich cites the examples of "least liberal, most corrupt and or straightforwardly incompetent governments such as Iraq, Zaïre, Haiti and much of sub-Saharan Africa" (p. 366). Similarly, "Agenda 21", the major policy document of the June 1992 Rio Earth Summit called for expansion of "existing systems of national accounts in order to integrate environmental and social dimensions in the accounting framework...." (Steer and Lutz, 1993, p. 22).The Rio Earth Summit was, arguably, promoting the concept of "sustainable development" on grounds that it has a promising potential of integrating the social and environmental aspects of development into the existing systems of organisational and national accounting. Thus by drawing upon the notion of "sustainable development" to further interpret the Authority's accounting and financial management systems, this chapter provides a 'broader' understanding of the effectiveness of these systems. Like the preceding chapter, the advantage involved in 'stretching' the evaluation in this manner is that it enables the researcher to avoid the danger of naïvely drawing 'firm' conclusions based solely on the simplistic technical procedures presented in Chapter Four[6].

Taking the above discussion as the platform, the next section examines the Authority's accounting and financial management systems in the context of the rural and national electrification programmes which are currently major priorities of the Government of Ghana delegated to the VRA and E.C.G. The section provides a discussion of the justifications (i.e. social and economic) for rural electrification in Ghana and attempts to find the extent to which the Authority's current accounting and financial management systems have changed to accommodate these new developments in the Authority's operations.

8.3.0 Rural/National Electrification and the Drive for Socioeconomic Development

Rural electrification is a major issue which most countries have faced (and others are still facing[7])

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[6] This is consistent with Lowe, Puxty, and Laughlin (1983) when they caution accounting researchers about the danger of providing simple theories (or explanations) for more complex processes.

[7] Indeed, a majority of those countries which are still facing the quest for rural electrification are the so-called developing countries (see International Energy Agency, 1994; World Bank, 1975).

at some stage in their drive for advancement in socioeconomic development. In the United States for example, although the quest for electrification in rural America began at the turn of the century, it was not until the creation of the Rural Electrification Administration (REA) in 1935 that rural electrification was accepted as a public responsibility (Brown, 1980, p. ix). But the establishment of the REA did not immediately lead to electrification for the rural folk in America until after the second world war. In most developing countries, rural electrification became a matter of public concern in the early 1970s. In fact the World Bank estimated that by 1971, the cumulative investment in rural electrification by developing countries in the Bank's operations area amounted to US$ 10,000 million (World Bank, 1975, p. 5)[8]. The Bank further projected that over the next ten years (i.e. from 1975 through to 1985), US$ 10,000 million to US$ 15,000 million was to be invested in rural electrification and this would be sufficient to provide up to a total of 300 million rural folks in third world countries with electricity.

Various national governments have different reasons for embarking on rural electrification programmes. Notwithstanding the diversity of objectives, Saunders, et al. (1978, p. 3-4) make an attempt to summarise the major expectations of national governments for promoting rural electrification in the following passage:

> 1. Increasing agricultural productivity resulting from the use of labor-saving electrical equipment
> 2. Changing crop patterns resulting from the use of seasonal labor-saving equipment and/or the use of electric pumps to provide irrigation water.
> 3. Development of rural industries; especially those related to the processing of agricultural commodities in rural areas.
> 4. Increasing per capita income resulting from increased agricultural productivity and the development of industrial opportunities.
> 5. Reduction in household labor through the use of electrical appliances.
> 6. Reduction in rural-urban migration of families and young people as rural living conditions improve and employment opportunities are created through industrial development and expansion.
> 7. Improvement in the household sanitary conditions and family health resulting from the use of electricity for water systems, refrigeration, ventilation and lighting
> 8. Relating to rural electric cooperatives; improved sense of community participation and

[8] The World Bank also estimated that this investment provided 23% of the village-rural population in Latin America, 15% in Asia, and 4% in Africa south of the Sahara or about 23% of the total rural population in poor countries with electricity by the early 1970s (see Cecelski et al, 1979, p. 73).

involvement resulting from work on self-help project; development of community leadership training.
10. Reduction in household energy expenditures with the substitution of electricity for candles, kerosene, gas and wood.
11. Increased satisfaction with life resulting from amenities available following electrification.

In Ghana, various Governments have, over the years, shown significant concern about the need for electrification of the entire country by the year 2020. Indeed, national/rural electrification was one of the major issues on the current Government's campaign trail during the 1992 and 1996 presidential and parliamentary elections (see Public Agenda, March 3-9, 1997). The importance of national/rural electrification to the people of Ghana is evidenced by the following quote from a report issued by the Ministry of Fuel and Power in September 1988:

> current estimates suggest that only about 15% of the country's population, largely concentrated in the southern urban centres of the country, is provided with electricity. Even this relatively fortunate few have not been able to rely on reliable and "clean" supply of this vital energy resource because of frequent disruptions of power outages and fluctuating voltages; attributable mainly to the neglect and sub-standard maintenance of existing generation and distribution equipment (Document no. 8).

The above quote illustrates the importance of electrification in any part of the country not only the so-called rural areas. Indeed, it could be argued that electrification of any part of the country except for the few urban areas in southern Ghana could be termed rural electrification. Notwithstanding the 'convincing' nature of such an argument, in Ghana, a distinction is often drawn between *National Electrification Project (NEP)* and *Rural, Lower Volta and the Self-Help Electrification Projects*. The former specifically relates to the electrification of District capitals in the North including Brong Ahafo, Northern, Upper Eastern, and Upper Western regions. This was first initiated in 1994 "under which electricity was to be extended to 3654 localities nation-wide by [the year] 2020" (Voltascope, Jan.-Feb. 1996, p. 4). Under the Rural, Self-Help Project, communities within a distance of 20 km from the grid could be connected by the year 2020. Whilst the VRA has the responsibility for electrifying the Northern sector (i.e. the four regions indicated above), E.C.G. is delegated with a similar responsibility for the southern sector (i.e. the remaining six regions). Funding for the Authority's component of the National Electrification Project is provided by a consortium of international and local bodies including, International Development Agency, DANIDA, Ministry of Mines and Energy, and VRA itself. Since the

Government has consistently provided the same justifications for rural and national electrification (see the next sub-section), the interpretive construction of the accounting systems against the backdrop of these projects does not find the distinction important, especially in the North where there is hardly any difference in socioeconomic living conditions between the District capitals and other remote villages.

8.3.1 Justification for National/Rural Electrification and VRA's Accounting and Financial Management Systems.

In its September 1988 report on the energy sector, the Ministry of Fuel and Power stated that the principal rationale for the national/rural electrification project in Ghana was "to accelerate the pace of industrial and economic development of the targeted areas" (Document no. 8). From such a 'broad' rationale, the investment in national/rural electrification can, arguably, be justified on two main grounds: viz socio-political and economic. While some commentators (e.g. Saunders et al., 1978) maintain that these grounds for justifying rural electricity can only be mutually exclusive, this thesis contends that there is the possibility for a justification that incorporate both socio-political and economic aspects. For instance, the Government might justify the large investments in rural electrification by perceiving it as a social good or service which rural people are entitled - to be considered along with education and health services (see Saunders et al, 1978, p. 170). However, as in the case of education and health (especially with the global restructuring of the traditional public sector), the Government might design a system (of accounting and finance) which aims at recouping either part or the whole of the investment in the project over a long period of time[9].

Following the contention in interpretive accounting research that accounting is not a neutral craft because of its inherent ability to render particular patterns more visible than others (see Burchell, et al. 1980), it could be argued that the organisation which is delegated with the responsibility for executing the rural/national electrification project will have to (re)design its accounting systems to reflect (or meet) the (new) requirements emanating from the justifying rationales of the project(s).

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[9] Perhaps, a period which might not be economically acceptable to the private profit-driven entrepreneur.

8.3.1.1 Social Versus Economic Justifications and Accounting and Financial Management Systems.

Under the social benefits approach for justifying rural electrification, the project is considered to be entirely in the social realm (see Saunders et al, 1978). From such a perspective, rural electrification could be likened to other traditional social services such as education, health, adequate pure water, roads and communication facilities, and waste disposal projects. Since the Government of Ghana holds itself out as not seeking profit maximisation (i.e. financial gains) from the national/rural electrification project, there will be no need for computing rates of returns and other accounting/finance ratios to justify the need for the project. The posture adopted by the Government of Ghana is evidenced by the following quote:

> The national electrification project is regarded as a priority to provide cheap and reliable electricity by extending the national grid to the northern half of the country (Ministry of Fuel and Power, 1988, Document no. 8).

The above quote further buttresses the contention that financial/economic justification for the rural/national electrification project is not accorded primacy from the perspective of the Government of Ghana. However, since the project is not wholly funded by the Government, other financiers of the project might seek some form of economic justifications, at least, assurance of future cash flows which will be sufficient for debt servicing. This is evidenced by the IDA's (the major lender for the national/rural electrification programme) conditionality that for the Government of Ghana to justify its national/rural electrification programme, an 'investment' plan should be drawn and clearly establish:

> uniform standards, identify priority programs for the extension of the grid to unelectrified areas of Ghana in accordance with satisfactory economic/financial criteria (World Bank Report, No. 8207, 1990, p. 7).

Certainly, private investors will not be attracted by such an economically marginal project[10] and therefore the most suitable accounting method in such a scenario might be a combination of

[10] The project would be perceived as economically marginal largely because of its social dimension. Consistent with the Government's stance and the absence of private capitalist investors in such a project, therefore, one would not expect profit maximisation to dominate the accounting practices of an organisation delegated with the execution of such a project.

"social accounting" in its narrow sense (see Agyei, 1977; Enthoven, 1977; Mobley, 1970; Sarpong, and Gray, 1989) with aspects of "private enterprise accounting" (see Enthoven, 1977). Since the VRA is an organisation which is expected to conduct its "operations on sound commercial lines", by delegating it the responsibility of rural/national electrification in the North, the Government has left the Authority in a situation where its operational objectives are increasingly becoming blurred (i.e. whether economic or social pursuits should be emphasized). Indeed, the situation which the Authority is currently faced with could be likened to what Bromilley and Euske (1986, p. 311) described in the managerial accounting literature as the "use of rational systems in a bounded rationality organisation". This argument derives from the contention in scores of studies that, as a human artefact[11], when society's demand changes, accounting systems must also change if they are to continue to be in the (dis)service of society (see Briston, 1978; Littleton, 1968; Perera, 1989). By adding the responsibility of national/rural electrification (which is perceived as a social service by the people of Ghana[12]) to its objectives, it could be argued that the VRA is currently experiencing significant changes in demand from society. As a human artefact, therefore, the Authority's accounting and financial management systems would be expected to change to continue in the service of society.

While a wide array of possibilities of change(s) in accounting systems is available to the Authority, two main modes of change are suggested in this thesis and were discussed with organisational actors. First, the Authority might decide to maintain its existing accounting systems intact on the grounds that they accord with "operations on sound commercial lines". But in addition, it will design another set of accounting systems which incorporates both the social desirability and economic requirements of rural/national electrification, to juxtapose the existing accounting and financial management systems. In this case, the accounting systems for the rural/national electrification are designed as though they were for a separate entity (see Dean, 1989b, for project accounting procedures). Such an option might however, involve a drain on organisational scarce resources, especially in third world countries where the scarcity of human and financial resources are much higher than in their advanced Western counterparts (see Craner

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[11] And indeed, a servant of society (see Littleton, 1968).

[12] Partly because of the Government's promises in political fora.

and Jones, 1990). The second possibility will involve an attempt to incorporate or integrate the requirements of the socially desirable rural/national electrification projects into the existing accounting and financial management systems. Although such an alternative might have the advantage of not over-stretching organisational scarce resources, it nevertheless, will involve a complete overhaul of the existing accounting systems.

While the changes in society's demands of VRA might have implications for a wide range of accounting and financial management issues such as planning, budgeting and control, and financial reporting, for illustrative purposes, the researcher identified the power rate structure as the most important and visible[13] element of the existing accounting and financial management systems which would be significantly affected by the rural/national electrification project. This was therefore discussed with organisational participants. The researcher initiated the discussion with an argument that if the rural/national electrification project could be viewed in the same perspective as health, educational services, and roads and communications (see Saunders et al, 1978, p. 171), then 'full' cost recovering should not become a central consideration in the project and for that matter should not be reflected in the Authority's accounting and financial management systems. Most organisational participants agreed with this view. For example, a respondent in the Finance Department noted:

> ... if our systems are to be judged effective in terms of socioeconomic development then full cost recovery should not be our goal with the national or rural electrification programme... Most local consumers, particularly at the District level will not be able to afford paying the full cost of service delivery... (interview no. 26).

For such a project to be beneficial to a majority of rural Ghanaians[14], two options regarding the pricing structure were raised by the researcher. As a first option, the researcher argued that the most obvious and perhaps common mode of promoting rural/national electrification would be through Government subsidy of rural electrification. Indeed, this strategy has historically proved effective in most of today's advanced countries including the United States, United Kingdom, and

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[13] Most important and visible to all parties concerned including; the Ghana Government, and VRA management, other financiers, and the rural (potential) electricity consumer, because of its direct impact on revenues, returns on investments, and net personal incomes respectively.

[14] Who are also relatively low income earners compared to their urban counterparts.

Australia[15]. A significant number of respondents agreed with this view. For example a senior staff member remarked:

> ...Government subsidy is traditionally one of the best ways of encouraging rural electrification... If the national electrification scheme is to be successful, then we will need to change our domestic rates and receive subsidies from the Government to top up these rates... In that case, we will be meeting the objectives of operating on sound commercial lines and also effectively contributing to the Government's policy of providing electricity to all corners of the country... (interview no. 18).

The second option involves designing the rate structure in such a way that urban electricity consumers cross subsidise electricity in rural areas. The motive for such cross-subsidisation is equity. As Reed (1996) observes:

> Equity is the fundamental concern of sustainability's social dimension. The Standard used in assessing social sustainability is whether society is providing all citizens the opportunity to have access to minimum standards of security, human rights, and social benefits, including food, health, and education... (p. 434).

In the case of the Authority, the power rate charged to both the rural and urban dwellers is the same[16] (i.e. uniform non-subsidised power rates), and does leave a greater number of rural Ghanaians who have already connected electricity under the national/rural electrification project with huge unpaid bills, especially in the N.E.D. operating area (interview no. 29). In an interview with staff members at N.E.D. it was (once again) echoed that the Authority had little influence in designing its pricing structure. This is evidenced by the following remarks by an organisational

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[15] It should be noted, however, that the successful implementation of this strategy in the advanced Western countries is no guarantee that this would work equally for today's developing countries. This is the fundamental basis of cultural imperialism (or ethnocentrism) which has been significantly criticised in the literature (see Perera, 1989; Said, 1993).

[16] As at first January 1995 the Authority charged N.E.D. and E.C.G. a wholesale rate of C23 per kwh. Organisational actors were however, unable to discuss the actual rate charged to the individual households per unit of electricity since this was perceived as very confidential proposals made to the government and could not be released at the time of empirical evidence collection. Some organisational actors speculated that an ostensible reason for the Government's silence on the rates proposed was the impending political elections. There might be some substance in such speculations because barely three months after the Government was ushered in (i.e. re-elected), an announcement of a proposed 300% increase in domestic power rates was made.

participant:

> ... the accounting [and financial management] systems should change to reflect these [change in] Government policies, especially the rate structure, but the fact is, whatever we propose to charge to the ordinary consumer of electricity must be determined together with E.C.G. which is responsible for power distribution in the south... This in turn is subject to approval by parliament... Yes, currently our rate structure is such that there is cross subsidisation between residential, non-residential and industrial consumers... On the average, a household in Tamale incurs a power bill of C5,000 - C10,000 per month. But residential consumers still think the power cost is high ... To show its commitments to the national electrification project, I agree with you that the Government should have subsidised rural electricity. In that case how our pricing system is designed wouldn't have been a problem as you and I can see. Unfortunately this is not so... (interview no. 19).

Thus, the Government's rural/national electrification project becomes a matter of concern because with the current pricing structure, most rural folks are not going to be able to connect to the national grid despite the fact that transmission lines might run directly above the roofs of their homes[17]. If such becomes the case, then the purpose of the rural/national electrification would have been defeated. There are scores of empirical studies on rural electrification projects whose purpose(s) have been defeated because they were perceived as not economically accessible to the poor majority[18] (see Cecelski, et al, 1979). For instance, there is evidence that, a 1978 survey in Comilla, Bangladesh, where rural electrification began in 1963, showed that even 15 years after the introduction of electricity, less than 5% of the rural population used electricity because of high power rates vis a vis rural income levels.

Thus as far as the Authority's accounting systems are concerned, there have not been any changes to reflect the social desirability of national/rural electrification. As a respondent in the Finance Department noted:

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[17] This view was also shared by organisational actors. They maintained that the large number of customers whose accounts are due for disconnection under the Authority's policies (i.e. for long overdue bills) supports this view.

[18] The emphasis in this argument is on 'poverty' in relative terms since there is a tendency to overlook income disparities in third world countries especially by ethnocentric researchers as evidenced in Rostow's (1960) stages model.

> ... no we have not made any changes in our systems to reflect the national or rural electrification programme... Such changes will only be necessary if the Government agrees to subsidise rural electrification... VRA is only an agent carrying out the Government's policy on electrification... we expect the Government to come out with the suggestion... I know the issue would have been discussed ....but... we can only wait (interview no. 18).

Indeed, the Authority is currently experiencing a situation where the government on its political platforms assures the people of "cheap power for all by the year 2020" but the systems of pricing electricity do not only contradict such promises but are also closely monitored and controlled by the government. For instance, the proposed 300% increase in power rates charged to the Ghanaian electricity consumer is perceived by the Government as part of a strategy which seeks to move the Authority towards commercial competitiveness. Such a strategy, however, is quite inconsistent with the social desirability of "electricity for all by the year 2020" which is emphasized in Government's political fora (indeed, a replica of the situation reported by Bromilley and Euske, 1986). With such inconsistent demands from the Government, the management of the Authority does not have any motivation to reflect "social considerations" in its existing accounting and financial management systems[19], especially the rate structure.

By insisting that the Authority should maintain the existing pricing structure (i.e. a system which does not provide subsidies for rural electricity consumers), the Government of Ghana is failing to recognise that maximum utilisation and therefore maximum benefits of the rural/national electrification programme will only be realised if actual electricity use equals potential use (see Saunders et al, 1978). To reach such a goal, the government will have to institute policies which will seek to operationalise the social desirability of the rural/national electrification programme. Consistent with such a change will be the need for the Authority's accounting systems, with particular reference to the pricing structure, to incorporate these social justifications of rural/national electrification projects. Until then, the Authority's accounting and financial management systems will continue not to reflect the "people-centred" dimension of sustainable

[19] The researcher found this defence which was put up by the Authority's management very convincing and indeed, it supported the substantial institutional theorisations of accounting systems design and change process in the extant managerial accounting literature (see, Alam and Lawrence, 1994; Ansari and Euske, 1987; Hoque and Hopper, 1996; Scapens, 1990; Covaleski, et al, 1996).

development.

8.4.0 Accounting Systems and Environmental Obligations of the VRA

One of the most pervasive and topical issues in academic and professional research is consideration of integrating the environment into 'traditional' research agendas. The overwhelming concern for environmental awareness is evidenced by the emergence of such sub-disciplines as environmental accounting (see Gray, 1992; Gray et al, 1995) and environmental or ecological economics (see Mikesell, 1992) among others. As indicated in section two, environmental issues are also an important dimension of the notion of "sustainable development". Therefore consistent with the interpretive framework adopted in this chapter , this section seeks to examine the extent to which the environmental obligations of the VRA have been integrated into its accounting and financial management systems over the years. The discussion in this section is based principally on the interviews with various staff members of the Authority.

Like most electric supply utilities, the VRA has its environmental obligations which management has always sought to carry out (senior officer, Real Estate and Environment Department). One of the major environmental concerns of VRA is the resettlement of the people who were displaced for the construction of the Akosombo and Akuse dams[20]. Although the responsibility for the maintenance of the resettlement townships built for persons displaced by the formation of the Volta Lake has been, at the request of the Government, transferred to appropriate departments and agencies of Government since 1971, residual problems affecting the settlers are still referred to the Authority for advice and necessary action (VRA Annual Report, 1991, p. 5). While the Authority has made this one of its major priorities since its establishment, there is ample evidence that it still continues to dominate the Authority's environmental concerns (senior officer, Real Estate and Environment Department).

Despite the fact that VRA has over the last thirty years "taken measures to control the environmental problems arising from the construction of the Akosombo and Akuse dams and has tried to help develop communities along the lake area", recent trends show that, the Authority's

[20] Those communities which were displaced as a result of the construction of the two dams include Torgome, Natriku, West Kpong, South Senchi, Fadzoku, and Old Akrade.

operations have come under serious scrutiny for environmental friendliness (Vittor-Quao, 1996, p. 8). Such pressures are partly induced by international trends, health related problems (particularly Bilharzia) resulting from the construction of the dam, and other environmental problems caused by the people resettled along the lake area. As a respondent in the Real Estate and Environment Department noted:

> ...Today, every electricity utility has to carefully consider and monitor the environmental impact of its operations ... This happens in every part of the world... VRA has environmental issues which result from the construction of the two dams... and we are carefully monitoring these... (interview no. 34).

For instance, extensive (crude) fishing and farming are undertaken by the lake side settlers who also depend on fuel wood for domestic and commercial purposes. Such unfriendly and uncontrolled activities along the lake side not only mar the natural beauty of the valley but also threaten the life span of the Volta Lake, the main source of electrical power generation for Ghana (Vittor-Quao, 1996).

In response to these recent pressures, the Authority, in 1994, redesignated its Real Estate Department as Real Estate and Environment Department charged with the responsibility of effectively tackling and resolving the environmental issues arising out of the Authority's operations (VRA Annual Report, 1994, p. 10)[21]. Organisational participants maintained that the new Department for environment was necessary because:

> ...although environmental issues have always been given an important emphasis by management, the current global trend suggest that we need to create a Department in the Authority responsible for monitoring the Authority's environmental activities (interview no. 34).

The new role of the Department also includes focusing on developing and implementing measures to mitigate effects of the Authority's operations on the environment. The Authority's

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[21] The Authority also runs a well equipped Hospital which provides proximity and excellent services for staff members and the people living in these areas (see chapter five). The general attitude of the Authority towards this Hospital is summarised in the words of the Surgical Specialists and Superintendent of the Akosombo Hospital in the following words: "There is no limit on medical expenditure [for employees].... No matter how much it costs we'll always ensure that our patients are given the best treatment" (cf. Owu, 1996, p. 5).

commitment to these policies is demonstrated by the creation of a Trust Fund of US$ 500,000 (or approximately C525.5 million) a year to assist settlements affected by its activities. In 1994, the Authority also formulated:

> ...measures to check the adverse effects of land degradation along the Volta Lake by reafforesting about 430 hectares of degraded areas on the slopes of the Adjena Gorge.... We plan to extend this programme to similar areas along the lake in the coming years...., we are [also] educating and involving the people living in the towns and villages along the shores of the Lake in the fight against environmental degradation... (VRA Annual Report, 1994, p. 10).

Vittor-Quao (1996, p. 17) observes that every Ghanaian has a duty to protect the life span of the two dams as evidenced by the following quote:

> it is imperative that as the Authority in fairness reconsiders the responsibility to bear the costs of those problems associated with the construction of the two dams, we all join hands to help appreciate and contribute to save and prolong the life span of the lake.

While the Authority has demonstrated significant commitments to alleviating the environmental effects of its operations, the activities of the relatively new Department of Real Estate and Environment have not yet been integrated into other Departments of the Authority. For instance, there is ample evidence that traditional accounting methods do not often provide adequate information on environmental costs, and thus result in ill-informed and costly management decisions (see Quellette, 1996). Recent research also shows that there are signs that "management control systems" can provide a framework for an integrated environmentally friendly organisation, especially in the hydroelectric industry (see Evans, 1996; Cavanaugh, 1996). At the VRA not only are environmental issues unintegrated into mainstream cost determination, but organisational participants do not envisage this as happening in the next few years. As a respondent remarked:

> ...we still have problems of integrating the environmental issues in our cost accumulation process... I see the problem to be currently beyond the Authority's control... This requires time... the Authority will not be able to overcome this problem in a year or two (interview no. 34).

Although recent events show that VRA is significantly committed to environmental friendliness, the organisation is currently faced with a shortage of technical expertise in the areas of assessment, recognition, and costing of the environmental impacts of its operations. These difficulties are not peculiar to the Authority as evidenced by the situations in the United States (see Ali, 1994; Carson, 1994; Quellette, 1996; Williams and Phillips, 1996), New Zealand (Hooks, 1996; Orr, 1994), United Kingdom (Baker, 1996; Evans, 1996), Canada (Glenn, 1995; Plackett, 1995; Selg, 1994), Australia (Frost and Wilmshurst, 1996; Keys, 1995) and Asia (Jarret, 1996). For instance, it was found that organisational participants did not have knowledge of such relatively new environmental costing techniques as "Life Cycle Costing[22]" (see Epstein, 1996) and "environmental management accounting" (see Baker, 1996) which are currently experimented in some Western nations, notably Canada which is perceived as being at the leading edge in environmental accounting (see Anonymous, 1994)[23]. Perhaps the lack of technical expertise is a reflection of the fact that assessments, recognition and costing of environmental impact require a combination of highly skilled engineers, legal and accounting personnel. This lack of technical expertise in quantifying the Authority's environmental issues is noted by Vittor-Quao (1996, p. 8) as follows:

> to enable the section [Real Estate and Environment Department] to fulfill its responsibility effectively, management is still considering proposals presented on the effective manpower and equipment needs of the section... It is very important that such a section has some minimal number of experts to look at specific areas especially supervision and assessment of strategies being initiated...

Although the Authority consistently maintains that it prides itself with the competent army of staff (see the discussion in Chapter Four), it was pointed out to the researcher that the

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[22] Life Cycle Costing is an environmental costing technique which derives from Life Cycle Assessment (LCA). It attempts to identify all environmental costs and benefits associated with a process, product, or activity throughout all stages of its life. It involves three stages starting with a preparation of inventory of current environmental activities related to pollution prevention and control; integrating accounting and financial analysis techniques into environmental decisions; and monitoring corporate environmental performance well (see Epstein, 1996 for a detailed description of the technique).

[23] It is important to mention, though, that the technique of Life Cycle Costing might not be known to most organisations in the so-called advanced countries. Therefore, the lack of knowledge of this technique should not significantly influence judgements of the competence of the Authority's accounting staff. By mentioning it to organisational participants, the researcher's secondary objective was to bring this to their notice as a contribution towards the efforts to design costing procedures for environmental impacts of the Authority's operations.

requirements of environmental accounting call for further training of existing staff or recruitment of "new" staff with expertise in this area[24]. On this, a respondent noted:

> I am not an accountant, but ... I know environmental accounting is a specialised area... it is a recent development which our current systems cannot properly incorporate... The Authority will need to retrain some staff to handle the special requirements of environmental accounting... Although our systems may not address or reflect environmental issues because such issues were not considered in designing the systems, I will not say they are deficient... (interview no. 34).

This view is shared by another respondent when he remarked:

> ...the Authority takes the environmental impacts of its operations seriously... Our accounting systems do not reflect the environment because even in the developed countries there are still problems with environmental accounting because it is fairly new... just like what I said about Activity Based Costing... (interview no. 03).

Management saw the need for staff with expertise in costing and assessment of the environmental impact of its operations as an urgent requirement if the "new" Department is to thrive and get integrated with other Departments particularly Costing and Management Accounting Division and the Finance Department as a whole. At the time of empirical evidence collection for this thesis, there was an impending seminar under the theme *The Present Environmental Thinking and its Effect on VRA*, to be organised for certain categories of VRA staff. The main objective of this seminar was to encourage staff members of other departments (particularly Accounting and Finance[25]) to understand the integrative role of the new Real Estate and Environment Department within the broader organisational spectrum. It was the expectation of management that with a clear understanding of how their roles interact with the functions of the "new" Department, organisational actors will be able to work together towards overcoming its initial difficulties, including devising techniques for quantifying, costing, and evaluating the impact of the Authority's operations on the environment. The Director of Real Estate and Environment was quite optimistic that if organisational members worked together, solutions for the VRA's

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[24] The Authority intends to pursue both options because of the paucity of Ghanaians who can effectively design, implement, and monitor environmental costing systems to a considerable standard.

[25] Because of the urgent need to design techniques or procedures for costing environmental impacts of the Authority's operations.

environmental problems will not be hard to find. As the Director noted in an interview with Vittor-Quao (1996, p. 17); "the environmental problems do not demand [only] new solutions but rather very tactical approach to promote human health and economic benefits to all parties involved".

In discussing the problems of the new Real Estate and Environment Department, a senior staff member indicated that one of the major problems it has with the Finance Department is the strict budgetary control procedures. He observed that:

> anything that is not provided for in the annual budget requires special approval from the Director of Finance and appropriate Deputy Chief Executive. But this process is so rigid. Sometimes, the Finance Department does not have a good knowledge of what is requested and therefore they rely on the Deputy Chief Executive responsible for the particular area who sometimes have to consult with the so-called experts... It is true that this is necessary for financial control purposes, but the delays are sometimes unacceptable (interview no. 34).

In addition, while the Authority has established a Trust Fund specifically for environmental issues, the most important concern is how to quantify (or ascertain the cost of) the environmental impact of its operations. For instance, to withdraw any money from this Trust Fund, which is "administered by a body including Parliamentarians of all the affected settlements", appropriate costing procedures are required (VRA Annual Report, 1994, p. 10). These procedures are currently arbitrary, though subject to reasonable justification and the scrutiny of the Director of Finance and appropriate Deputy Chief Executive. There is a need to standardise procedures for accessing this fund because the delays are currently perceived as unacceptable. However, standardisation can only be possible if the Authority is able to design ways of costing the environmental impact of its operations and integrate this into mainstream managerial accounting.

To gain an understanding of the forces driving the Authority to pursue these environmental policies with such renewed vigour, organisational participants were asked whether the Authority was under pressure from some 'external' power such as the government or financiers to pursue such policies. It was related by organisational participants that both the Government of Ghana and the Authority's financiers insist on environmental friendliness of its operations. As a respondent remarked:

> ...environmental friendliness is a requirement of both the Ghana Government and most of our financiers, particularly the World bank Group... Especially after the 1982-84 Valco renegotiation and the establishment of the Environmental Protection Council, the Government became very particular about how the Authority handles its environmental issues... We are required to take steps to ensure that our operations are environmentally friendly and also report this in our annual financial reports... (interview no. 34).

Thus disclosure of environmental issues in its annual reports are required to assure the Government of Ghana which has delegated some aspects of the responsibility for resettlement of the people displaced as a result of the construction of the Akosombo and Akuse dams to the VRA that these people, and indeed the dams, are properly looked after. In the case of the financiers, the Authority is required to state the environmental impact of any project for which it is seeking funding from these institutions, particularly the World Bank Group which remains the Authority's major external source of funding for its projects. For instance, it was related by organisational participants that while a recent decision to justify capital investment did not directly include the environmental impact of such a project in the costing or economic evaluations, it nonetheless, emphasized environmental issues as significant 'qualitative' factors (interview no. 47). Similarly, in its 1991 proposal for funding (for power extension to Wa in the Upper Western region) from the International Development Association, a member of the World Bank Group, the VRA disclosed environmental impacts as follows:

> The proposed project is not expected to have any major adverse environmental effects. An important component of the project (17% of the project costs) is to supply Wa in the Upper West Region. The shortest route to supply Wa is the extension of 161 kV systems from Daboya to Wa (approximately 150 km). However, the line would need to go through the Mole National Game Reserve. Cognizant of the environmental needs of the project and of the African Convention for Conservation of Nature and Natural Resources Agreement, signed by Ghana in 1969, VRA has decided to build the transmission line to Wa by circumventing the Mole game reserve and thereby protecting it. This has increased the distance to be covered by about 280 km and has therefore, substantially added to the cost of this component. The transmission line in the north will provide grid supply to an area presently supplied by diesel generators and would, therefore, eliminate air pollution caused by diesel generation... (World Bank, Report No. 8207-GH, p. 23).

The discussion in this section shows that the Authority is currently pursuing environmental policies which are quite important to the people of Ghana. However, these efforts are still at initial stages and explains the lack of integration of environmental policies in mainstream accounting and financial management procedures. It is worth emphasizing that in terms of disclosing environmental policies and impacts in annual reports, significant efforts[26] have been made by the Authority in the past especially when compared to results of surveys in such advanced Western countries as Australia, New Zealand, and the United Kingdom, although the Ghanaian public still remains skeptical (see Chapter Seven). This partly explains one senior officer's (of Real Estate and Environment Department) comment that "as far as environmental awareness and disclosures are concerned, VRA is doing better than any other Ghanaian corporation, ...that is why I mentioned earlier on that our systems can not be described as deficient if they become known to whoever is making that assertion" (interview no. 34).

8.5.0 Power Sector Reforms and the Future of Accounting and Financial Management at VRA

It was mentioned in Chapters Four, Six and Seven that the Government of Ghana, in collaboration with the Bretton Woods institutions, is currently pursuing policies which aim at restructuring the power sector. Since the mid 1980s, the Government of Ghana has embarked upon what has been dubbed the Economic Recovery Programme (or ERP) (see Toye, 1991 for a detailed discussion of these policies). An important concern of the ERP is the reform or restructuring of some public sector organisations. "Under the [economic recovery] program E.C.G. and VRA are key public utilities to be commercialised[27]" (World Bank Report, No. 8207-GH, 1990, p. 5). The major objectives of the Government with regards to the power sector restructuring have been summarised by the Ministry of Fuel and Power as:

> 1. Rehabilitation of dilapidated infrastructure, with restoration of effective maintenance of generating plant, transmission and distribution equipment, and restitution of strategic end-uses such as street planning;
> 2. Extension of the reach of electricity to all parts of the country, especially the northern part of the country and rural areas;

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[26] VRA Annual Reports and Accounts, 1987, 1990, 1991, 1994. For a specific example from the annual reports, see quote at the beginning of section 8.4.0.

[27] It must be recalled that the VRA was established to "operate on sound commercial lines". Commercialisation as used in the World Bank's report is synonymous with privatisation which involves the floating of shares of the entity on the stock market or through other means, for private investors, including the Government, to purchase.

> 3. Assuring future security of power supply by developing complementary power generation capacity from other energy sources and improvement of existing hydro-power resources (Document no. 8).

The Government maintains that the "power sector is a potential constraint on economic development because of the under-investment in recent years", and thus seeks to ensure efficiency and effectiveness of the sector through commercialisation (World Bank Report, No. 8207, 1990, p. 5). To achieve this objective, the Government of Ghana has redrawn the responsibilities in the power sector to encourage competition in the supply of electricity to consumers. The World Bank summarises the Governments' vision in the following words:

> The ultimate objective is a financially viable, well-managed sector, whose institutions enjoy a high degree of autonomy and are capable of delivering a reliable and economic supply of electricity (World Bank Report, No. 8207-GH, 1990, p. 5).

A major contradiction is easily noticed in the Government's vision. It was established earlier (in section 8.3) that the Government seeks to promote rural/national electrification in a country that is dominated by the "poor"[28]. Such a project, it was argued, would therefore require a strong emphasis on social justification. However, to accomplish this objective (perhaps among others), the Government expects the power sector to be financially viable to the extent that revenues will not only be enough to cover costs in full, but also provide significant returns[29] on its investment. A similar contradiction was noted in section 8.3.1.1. The most obvious question then is, how is the Government and its executing organisation (the VRA), going to be able to achieve such apparently conflicting objectives?

To achieve its objective of commercialising the power sector, the Government has identified two principal strategies. The first involves a long term measure to complement the power supply base. A proposal has been made and indeed, work is currently underway for the construction of gas turbines for thermal generation of electricity. In its September 1988 Report, the Ministry of Fuel and Power observed that "this development [thermal generation] is necessary to meet both

[28] See Chapter One for the definition of poverty in this thesis.

[29] Returns which the World Bank perceives as not too different to what would be obtained by private investors (see World Bank Report, ibid).

the need to complement the existing hydro-power base as well as to meet the expected increase in power demand" (Document no. 8). The Government also sees the need for rehabilitation/retrofitting of existing hydro-power facilities estimated at the equivalent of US$ 558.0 million (World Bank Report No. 8207-GH, 1990, p. 6).

The second strategic issue which the Government is seeking to ensure is the rate structure. In particular, the Government seeks to commercialise the power sector not only to encourage efficiency and effectiveness in the generation and distribution of electricity, but also to ensure that electricity rates are affordable (interview no. 19; see also World Bank Report, ibid, p. 7). However, there is currently a major difference between the Government's perception of what constitutes 'affordable' power rates and that of the ordinary Ghanaian electricity consumer. In the case of the Government, affordable power rates require the "mobilisation of resources from within the [power] sector by charging tariffs sufficient to cover costs, to contribute a reasonable portion of investment costs and to earn a reasonable return on invested capital[30]" (World Bank Report, No. 8207, 1990, p. 7). Such a perception of affordable rates is quite inconsistent with that of the ordinary Ghanaian electricity consumer whose understanding of affordability is based solely on what the 'market' can bear (i.e. rates which are relative to income levels in the country). Certainly, any attempts to increase power rates to reflect the Government's notion of affordability is bound to produce tensions. This is because, as the Government acknowledges, since the mid 1980s, power rates have not kept pace with the substantial increases in costs of electricity production. In particular, recent power rates have not fully reflected the galloping Ghanaian inflation rate and recent devaluations of the cedi[31]. In fact, there is evidence that the Government's notion of affordable rates will be resisted strongly by the people of Ghana (see the comment of the Consumer Association in section 7. 4.0).

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[30] After taking into consideration the recommendations of its consultants, Coopers and Lybrand, U.K., the Government decided that a return of 8% on its investment (i.e. on current values of fixed assets) was sufficient reflection of effectiveness and efficiency. This expected returns are the same as the World Bank's conditionality for the Volta Project as a whole. This and pervious illustrations (see Chapter Seven) certainly show the extent to which the World Bank is influencing the perceptions of both the Ghana Government and management of the Authority.

[31] It was indicated in Chapter Six by organisational actors that quite often the Government approves of rates increases which are justified on grounds of inflation. Even in that case the 'full' inflation rate has never been reflected in approved domestic power rates.

In its bid to encourage competitiveness, effectiveness and efficiency, in the power sector, the Government of Ghana commissioned consultants (Coopers and Lybrand, U.K.) to undertake a tariff study of the power sector (World Bank Report, No. 8207, 1990, p. 7). In their recommendation, Coopers and Lybrand, U.K., indicated that for the power sector to become commercially efficient, then tariffs which reflect long run marginal cost (LRMC) of supply should be adopted. While Coopers and Lybrand perceives LRMC as affordable and easy to administer, they identified:

> ...as part of the LRMC of electricity supply, in Ghana, the opportunity cost to the economy of lost export revenues resulting from higher Ghanaian demand. This factors represent about 40% of LRMC and, to recover it from Ghanaian customers, constitutes a burden on them.....[They] also identified a serious problem of affordability in applying LRMC tariffs to residential customers and recommended phasing-in full LRMC over 25 years (World Bank Report, ibid, p. 7).

In accordance with the recommendation of Coopers and Lybrand, the Government agreed to adopt uniform national pricing structure (i.e. a pricing structure which does not take location or relative income levels into consideration). Thus as was discussed earlier in section 8.3, rural electricity consumers[32] are required to pay the same power rates as their urban counterparts who are relatively high income earners. Currently, while there is some cross subsidisation in the tariff structure[33], empirical evidence shows that tariffs for residential and non-residential (i.e. local) consumers (whose consumption is over 600 units) "are comparable to those in many developed countries" (World Bank Report, ibid, p. 8).

These two (main) strategies which the Government of Ghana and the Authority are currently pursuing were discussed with organisational actors to extract their views about the future of accounting and financial management at the Authority especially with particular regard to the Authority's relations with Valco and the ordinary Ghanaian electricity consumer. An interpretive construction of these discussions is now presented in the next sub-section.

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[32] Who need to be encouraged to stay in the rural areas to avoid the current problems of rural urban drift and its attendant consequences as rising urban unemployment.

[33] It is important to note that cross subsidisation exists between residential and non-residential consumers but not urban and rural Ghanaians as was done in some developed countries in their drive to promote rural electrification.

8.5.1 Changes to Accounting and Financial Management Systems Required by Organisational Participants.

In a recent article on Man Power Audit at the VRA, a case for significant changes in the Authority's manpower planning was argued as follows:

> In the face of continuous environmental changes i.e. economic, political, social and technological progress, organisations are bound to periodically review their strategic approaches to the attainment of organisational goals... This sustains the focus on the need to generate sufficient profitability to ensure a successful long term future... In the light of the foregoing, management noted the need to determine the optimum staffing levels for effective manpower planning and the application of more effective work methods as areas of immediate concern (Voltascope, 1997, p. 6).

The most obvious[34] concomitant question then is, how is management responding to these environmental changes with particular regards to the Authority's accounting and financial management systems? (i.e. what changes to the accounting and financial management systems are required to meet this major change in direction through the impending privatisation?). The presentation in this section seeks to address this issue.

As far as the Authority's future relations with Valco is concerned, the overwhelming perception of senior management of the Authority is that the 'symbiotic' relations which has characterised the two organisations for the past thirty years should be continued with some significant adjustments. As one of them remarked:

> Let's get it straight. Let me mention that it is because of the quantity that Valco has guaranteed to buy from us that we don't seem to remember how difficult it is to look for major customers. Once Valco goes, we will begin to appreciate their importance. We certainly will be able to sell part of the quantity currently consumed by Valco to other customers most certainly at a higher price, but their demand will not be enough to keep us operating at the current level.... It is almost certain that without Valco VRA will be producing under-capacity (interview no. 22).

The senior officer however, went on to observe that with particular reference to the rate charged to Valco, it is extremely important for the Authority and the Government of Ghana to take a

[34] To a researcher whose concern is about the Authority's accounting and financial management systems.

stance in the 1997 renegotiation (for Valco's remaining twenty year period under the 1962 agreements) that will reflect the competition which is sought for the entire Ghanaian power sector. Without such a competitive rate from Valco, the objectives of the Government's impending Power Sector Restructuring Programme will be hard to achieve in the case of the VRA. As another senior officer remarked:

> If the Government and the Authority repeat the mistake of the Nkrumah Government, then one cannot see how the power sector is ever going to be competitive. I am not going into politics, but I think both the Government and the Authority have competent people who will negotiate better this time. One important thing that should be noted is that Valco has already expressed interest to exercise its option of extending the contract for a further twenty year period.... Yes, it supports the theory that it is profitable for Valco to operate in Ghana... But we should exercise extreme care and diligence in dealing with this multinational corporation, especially in legal terms (interview no. 37).

Organisational actors also believed that power rates charged to the domestic consumers should take into consideration not only full cost of electricity production but also the income levels of the ordinary Ghanaian consumers[35]. Various reasons were given for such a position, including the need for a rate which is consistent with the Government's desire to promote rural/national electrification. To this end, the uniform pricing structure which was recommended by Coopers and Lybrand, U.K. was severely criticised. This was on grounds that it did not take into consideration the income disparities between rural and urban Ghanaians, and the important need to discourage rural/urban migration. As a respondent noted:

> ...the recommendation of Coopers and Lybrand did not reflect the local Ghanaian conditions... the Government should have commissioned local consultants to advise on this important issue... (interview no. 27).

In terms of the Authority's financial reporting practices, the frequent revaluation of its assets for the purpose of determining what is perceived as "accurate" returns on investment by the World Bank, was strongly questioned for its relevance vis a vis the "huge" sums paid to consultants. Organisational actors were of the view that while the high inflation rate in Ghana might be cited to justify this exercise, the huge revaluation surplus which sits in the Authority's account might

[35] Such a pricing structure, they maintain, will only be possible with Government subsidies for rural electricity consumers.

become a major source of contention in a privatisation situation. Suggestions were made that with the impending privatisation, the revaluation surplus could be capitalised and issued as shares since it currently forms a major part of the Authority's equity (standing at 74% of total equity in the 1994 Annual Reports). Organisational participants observed that some of the changes to financial reporting practices which will be required of the Authority are legal in character. For instance, they pointed out that there will be a need to change the way the Authority's annual reports are circulated (or distributed) to accommodate the requirements of the Companies Code 1961, Act 179 and indeed, if shares are floated on the Ghana Stock Exchange, then its requirements as well. A respondent in Financial Accounting Division noted:

> ...we may have to comply with other statutory requirements such as the Companies Code and the stock exchange requirements... (interview no.17).

With regard to the particular accounting standards which guide the preparation of annual reports at the Authority, the International Accounting Standards are still perceived as most important. This is because of the lack of local accounting standards in Ghana and the need to employ accounting standards which are acceptable to both local investors and international funding agencies who constantly have contracts with the Authority. On this issue a staff member of the Financial Accounting Division remarked:

> ...efforts are made to set local Ghanaian accounting standards... IASs will continue to be the most appropriate standards for our purposes until the local standards are available... (interview no. 17).

In the area of cost and managerial accounting, a major change that is perceived by organisational participants is the emphasis on computerisation. While the Authority is currently endowed with a number of computers, it was observed that these machines are not fully utilised because of lack of training. To become competitive, cost efficiency was perceived as of paramount importance and that improvement in costing procedures could be facilitated through maximum use of computing facilities. In addition, the switch from traditional overhead allocation to Activity Based Costing was perceived as one of the major ways through which a richer understanding of cost behaviour patterns could be gained and thus could lead to cost reduction through the implementation of appropriate cost control measures. Organisational actors however, observed that the benefits of implementing an ABC system will be greater if staff members could explore the full potential of their computing facilities. A staff member of the Budgeting Division observed:

> ...If we are able to train all or even 90% of our staff in this Department [Finance] to maximise the use of our computers, cost efficiency [control] will almost definitely be achieved (interview no. 25).

The need for maximum utilisation of computing facilities was closely related to emphasis on decentralisation of accounting and finance between the Head Office and Area Finance Offices. To eliminate some delays which currently occur at Area Offices, it was suggested that some form of decentralisation would need to be emphasised. Organisational participants observed that management have, in the past, discussed this possibility but that with the threats from the Power Sector Restructuring Programme, management will need to act swiftly. Some senior management were of the view that an effective decentralisation would entail making N.E.D. a complete autonomous entity responsible for retail of power in Northern Ghana under the supervision of VRA. This, they argued, would have the effect of eliminating delays in the decision making process, particularly in the North.

Having provided an interpretive construction of the accounting and financial management systems at the VRA with particular reference to the notion of sustainable socioeconomic development, the next sub-section provides a reflection on the preceding interpretations by relating the discussions to the claim that third world countries generally have deficient public sector accounting and financial management systems.

8.6.0 The Deficiency Claim: A Further Re-interpretation.

The technical façade in Chapter Four led to a conclusion that the Authority's accounting and financial management procedures could not be described as deficient as claimed in the current third world public sector accounting literature. However, by going behind the technical façade to investigate how these systems arise in Chapter Seven, it was concluded that VRA's systems might be deficient in another sense. Such an argument derived from the interpretive construction of the negotiations which characterised the Authority's pricing structure and their effects on the overhead allocation procedures, and financial reporting practices. In this chapter, an investigation of the extent to which the Authority's accounting and financial management systems are able to assist in the accomplishment of the purpose(s) for which VRA was established has been carried out.

While the Government of Ghana might have had its notion of development[36] at the time of establishing the Authority, in this chapter, a notion of development consistent with the Brundtland Commission's "sustainable development" guides an understanding of VRA's accounting systems. Thus efforts are made to evaluate the systems with reference to how they reflect environmental considerations and people-centredness.

An important role which is currently played by the VRA in Ghana's socioeconomic development is the rural/national electrification programme. While there is sufficient evidence of the Government's (and indeed, the Authority's) commitment to this programme, the investigation in this chapter reveals that a significant change in the power rate structure is still required. The existing rate structure is not only lacking in a reflection of people-centredness (especially the needs of rural Ghanaians), but also facing a danger of defeating the Government's stated purpose (i.e. social desirability) of rural/national electrification. Although, management have realised the contradictions in the pricing structure against the social desirability of rural/national electrification, institutional pressures are compelling the Authority to maintain the existing power rate structure. Thus while it could be argued that the Authority's accounting and financial management systems might be described as deficient on the grounds that some aspects of the systems are inconsistent with a major national development policy, it is equally important to observe the role of the Government of Ghana in perpetuating this inconsistency. Clearly, the Government is exercising strict control over the Authority's pricing structure and pursuing policies which are in conflict with this structure. Thus the Authority is faced with the use of rational systems in a bounded rationality situation, regarding the national/rural electrification programme (see Bromilley and Euske, 1986).

With regard to the extent to which VRA's accounting and financial management systems incorporate environmental considerations, it was observed that while there is a renewed vigour in terms of attention given to the environmental impact of the Authority's operations, these efforts

[36] Perhaps, the dominant economistic view

are still at initial stages. An important step which has been taken by the Authority in terms of its response to recent calls for environmental friendliness is the redesignation of the Real Estate Department as Real Estate and Environment Department with expanded functions. However, there are still problems in recognition, assessment, and costing of the Authority's environmental issues. Most important of these problems is the lack of technical expertise for integrating the traditional costing procedures with the strong desire to quantify and report environmental impacts. Although management has given this significant attention, the general paucity of technical expertise in this area (even in the so-called developed world) suggests that the situation at the Authority would not be changed within the next few years. The Authority has however, made sufficient progress in terms of disclosure of environmental impacts in annual reports. The importance of the Authority's efforts in this direction can only be appreciated by comparison to similar organisations in the so-called developed world. For instance, a recent survey of 500 Australian companies indicated that many organisations and corporate accountants were not committed to adopting environmental accounting practices (Frost and Wilmshurst, 1996). The Australian study found that only 43% of accountants surveyed believed that environmental information was important to the users of annual reports (Frost and Wilmshurst, 1996, p. 36). It could therefore be argued, from the foregoing, that in terms of the extent of disclosure of environmental impacts in annual reports, the Authority's accounting and financial management systems do not live up to the description of deficient, although much improvements are still envisaged by management. Clearly, the current inadequacies of the Authority's accounting systems reflect the general limitations of conventional accounting and its over-emphasis on the entity concept.

It was observed that significant changes in organisational direction would occur in the VRA because of the impending Power Sector Restructuring Programme. With the drive towards privatisation and competition, major changes to the Authority's accounting and financial management systems will also be required. While it could be argued that the current systems might not be adequate for the future challenges facing the Authority, there was sufficient evidence that management are committed to ensuring changes to the existing systems to accommodate the impending Power Sector Restructuring Programme.

The discussions in this chapter indicate that in terms of the extent to which the Authority's accounting and financial management systems are able to assist in the accomplishment of the principal rationale for establishing the VRA, while major problems exist with the current systems, these point to more general limitations of conventional accounting than a specific organisational or third world problem.

8.7 .0 Chapter Summary and Conclusion

This chapter has sought to provide a further investigation of the claim that third world countries generally have deficient public sector accounting and financial management systems. The chapter approaches its objective with particular regards to the purpose(s) intended to be served by the VRA and how the accounting and financial management systems are able to assist in this direction. The chapter pointed out that VRA was established by the first post-colonial Ghanaian Government as a principal vehicle for socioeconomic development of Ghana. Therefore, to understand the extent to which the Authority's accounting and financial management systems assist to achieve the purpose for establishing the organisation, an interpretive construction of the systems was carried out within the context of socioeconomic development. The chapter pointed out the existence of diverse conceptualisations of development in the contemporary literature and argued for a notion that goes beyond the dominant economistic view to incorporate people-centredness (i.e. social dimension) and environmental awareness. Such a 'broader' notion was labelled "sustainable development" by the Brundtland Commission in 1987.

Employing the notion of sustainable development as a framework for investigating the effectiveness of the Authority's accounting and financial management systems, it was observed that the people-centred dimension of the concept was not reflected in the Authority's present accounting and financial management systems. It was however, realised that management of the Authority had very little control over the design of the system, especially with regard to the pricing structure. In fact, a major contradiction was observed between the pricing structure and the Government's current policy of promoting rural/national electrification. On the environmental dimension of sustainable development, it was found that VRA is currently making significant efforts to incorporate environmental impacts of its operations into the traditional accounting systems. In terms of disclosure in annual reports, significant progress, in recent years, was observed (by the researcher). It was however, found that these environmental policies were pursued with renewed vigour because of external pressures from the Government of Ghana and international financial institutions, such as the World Bank Group. The chapter also showed that VRA is facing a major challenge in its future operations because of the impending Power Sector Restructuring Programme.

Chapter Eight concludes that, to the extent that the Authority's accounting and financial management systems do not reflect the social or people-centred dimension of sustainable development, it could be argued that the deficiency claim might be supported. However, by taking into consideration the recent efforts made by the Authority to incorporate environmental impacts of its operations into the existing accounting and financial management systems and the extent of disclosure of environmental issues in its annual reports, the basis of the deficiency claim, in the context of the VRA remains shaky. Indeed, the empirical study indicates that the inability of the Authority's systems to reflect the notion of people-centredness and environmental obligations suggests general limitations of both conventional accounting and the institutional setting within which the Authority operates.

Chapter Nine

Conclusions, Critical Reflections and Implications

9.1.0 Introduction

This thesis has sought to empirically explore and gain an understanding of the nature and effectiveness of accounting and financial management systems within a third world public sector organisational context. The study was motivated by the existence of major conclusions from scores of predominantly non-empirical studies on third world public sector accounting and financial management systems. One such conclusion is the widespread, yet empirically unsubstantiated, view that deficiency in public sector accounting and financial management systems is increasingly becoming a characteristic of socioeconomic underdevelopment. This chapter concludes the thesis through a critical reflection on the major concerns and conclusions of the study and also sets out the implications of the study for the domain of accounting research.

Chapter Nine is organised into four sections as follows: following this introduction is section two which condenses the discussions in the previous chapters in the form of an executive summary. The section presents reflections on the various conclusions of the entire study under one realm. Section three provides the implications of the study for accounting research and third world accounting in particular. The section also discusses the limitations of the study and future research directions. The final section then concludes the chapter.

9.2.0 Summary and Critical Reflections

In Chapter Four it was argued that every investigation and, indeed, every communication is an interpretive construction. And every interpretive construction has its own prejudices. For instance, to seek meaning and understanding of the nature and effectiveness of accounting and financial management systems at the VRA a wide array of methodological 'approaches' can be adopted. The choice of a particular approach over others cannot always be sufficiently justified because a way of seeing is also a way of not seeing (Poggi, 1965). This suggests that even at the peripheral level (i.e. deciding on a research approach), prejudices are encountered and should be acknowledged and where necessary critically reflected upon (see Laughlin, 1995). Like most research endeavours (see Laughlin, 1995), this thesis involved a lot of choices and therefore a reflection upon these choices and the resulting conclusions will further aid an understanding of the study. This section therefore summarises and reflects upon the entire thesis bringing out the major conclusions which were reached in the study. While the conclusions reached in the thesis are regarded as major contributions to not only the accounting literature on developing countries but the domain of accounting research in general, it is important to note that these conclusions might still be debated by some readers who either do not have the same theoretical spectacles as the researcher (and therefore would not have made the same choices as the researcher) or believe that research never comes to a conclusion but only pauses (for the latter, see Cochrane, 1996). The latter group rest their case on Kuhn's (1970) discourse on scientific revolutions and the development of knowledge.

9.2.1 Summary and Reflection on the Motivations of the Study

The thesis was motivated by the widespread claim that developing countries generally have deficient public sector accounting and financial management systems. The identification of this topic for the thesis was informed by two main issues: the need for a study which had developmental relevance to Ghana (i.e. one that will satisfy the requirements of the funding agency for this study) and the lack of substantive empirical support for such a strong and sweeping generalisation in the current literature. To put the study in perspective, Chapter Two surveyed the literature on public sector accounting and financial management systems in developing countries and identified the gaps in terms of themes, methodology, and methods. The critical assessment of the literature indicated that behind the claim that developing countries generally have deficient public sector accounting and financial management systems is a strong influence of development economic thinking including theories, such as Rostow's (1960) stages model. The relevance of some of these development economics theories have been significantly questioned or even discredited in the latter discipline (see Todaro, 1985). That accounting researchers have unquestionably accepted these conclusions was attributed to two main issues: the general paucity of empirical studies of accounting in developing countries, and the dominance of normative prescriptive theories empirically grounded in the advanced Western capitalist nations and often adapted to theorise (hardly known) conditions in developing countries. While such a mode for transfer of accounting technology and accounting knowledge from developed to developing countries has been jettisoned in private enterprise sector accounting principally on grounds of lack of sophisticated capital markets in developing countries[1], in the area of public sector accounting this practice has yet to be significantly questioned (see Dean, 1988b, on the problems of Performance Budgeting, Zero-Base Budgeting, and Programme Budgeting in developing countries). To justify the transfer of these technologies to developing countries, conclusions such as the existence of "inadequate", "deficient" and "weak" accounting and financial management systems in these countries are often emphasized. The thesis cautioned, however, that it will be erroneous or naïve to argue exclusively that what the current literature provides is entirely questionable. For instance there is considerable "evidence"[2] (from both Western and third world media) about the diversion of aid monies into personal bank accounts (in some cases with banks resident in the donor nations) by top level government officials in third world countries. A more recent example is the case against former multi-billionaire president of Zaïre, Mobutu Sese Seko. Such alleged practices by top level government officials in some developing countries breed grounds for the perceptions and conclusions of some research studies on governmental accounting in these countries (see for example, Most 1991). While some of these non-empirical assertions might have some substance in them, Chapter Two reiterates that without sufficient empirical exploration of some of these claims about the nature of accounting in developing countries, our knowledge in the area of third world public sector accounting and financial management stands the risk of ethnocentrism, illusionism and, 'incompleteness[3]'. Indeed, the concern of how little we know about the actual functioning of accounting in its social and organisational context (which became widespread over a decade and half ago, see Burchell et al, 1980; Hopwood, 1979) continues to loom over the discipline, as far as our knowledge of accounting in developing countries is concerned. Chapter Two therefore concluded with a call

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[1] See Perera (1989) for a detailed argument against the transfer of accounting technology from the West to third world countries.

[2] Perhaps what the media would consider "evidence" might not be sufficient for research purposes.

[3] Some might argue that knowledge on any particular subject can never be complete. While the researcher does not dispute the basis of such an argument (not only on grounds of the dynamism of various research issues but also the existence of diverse approaches to making sense of research issues), the current state of our knowledge on third world accounting, especially in the area of public sector, lags behind developments in other research areas in the discipline.

for third world accounting research (especially on public sector organisations) to be rescued from the current doldrums. As a contribution towards the rescue effort, this thesis provides an empirical investigation of the accounting and financial management systems of the Volta River Authority, a major public sector organisation which supplies electricity to Ghana and neighbouring countries.

9.2.2 Summary and Reflection on the Approach of the Study

In seeking to address the concerns and issues raised above, Chapter Three provided a discussion of the methodological and methodical orientation of the study. It pointed out the existence of a diversity of approaches for empirical studies in accounting and thus the inevitability of a methodological choice. Notwithstanding the dominance of the technical/rational approach to public sector accounting research, the chapter argued for what Chua (1986) labels the 'interpretive' paradigm. To clarify the meaning of this 'paradigm', the chapter drew upon Laughlin's (1995) suggestion that methodological positions could be explicated on the basis of the extent of prior theorising ("theory"), the role of the researcher ("methodology"), and the intent with regards to achieving change in the phenomena being investigated ("change"). Taking Laughlin's suggestion as the platform, the methodological position of the thesis was explicated as one which not only attached strong importance to the perspectives of the subjects being investigated (i.e. organisational actors) but also in which the researcher does not perceive himself/herself as a neutral entity. Prior theorising is used in this thesis to the extent that it helps to explain the taken-for-granted routines at the organisation being investigated. In particular, prior theorising was very relevant to provide an understanding of how the accounting and financial management systems arise at the VRA. With regard to change, although the perspective does not rule out the possibility of change resulting from a deeper understanding (by organisational participants) of the processes which guide organisational actions and interactions, changing the status quo is not the preoccupation of the interpretive analysis in this thesis.

Chapter Three also discussed the case study research design which is employed in this thesis. An important element of the design is the 'level', or depth of investigation required to enable informed conclusions on the substance of the deficiency claim. The chapter provides three levels of analysis. At the first level, the substance of the deficiency claim is investigated against the backdrop of the thick descriptions of the technical procedures for accounting and financial management at the VRA as presented by organisational actors. Such a level of analysis was required because of the dominance of the view of accounting as a neutral technical servant of organisations and society (see Littleton, 1968); a view which not only dominates the academic literature but was also shared by organisational actors most of whom were educated in this tradition. The second level of analysis draws upon social theory to further interpret the deficiency claim. In particular the theory of organisations as negotiated orders is employed to investigate how the accounting and financial management systems arise at VRA. By drawing upon social theory, a deeper historical analysis of VRA's accounting and financial management systems was made possible. This analysis further made possible a view beyond the technical and simplistic descriptions provided by organisational actors. The third and final level of analysis then examines the Authority's accounting systems within the context of socioeconomic development, the principal rationale for establishing VRA. An important contribution of the second and third levels of investigation was that they enabled the thesis to avoid the danger of naïvely drawing 'firm' conclusions based solely on the simplistic technical procedures presented by organisational actors[4]. These three levels of investigation are provided in Chapters Four, Seven, and Eight respectively. To collect empirical evidence, multiple methods were employed including interviews, observation, document analysis and survey.

9.2.3 Summary and Reflection on the Social Theoretical Perspective Mobilised

Chapter Five provided an explication of the negotiated order perspective as the social theory which enables a deeper understanding of how VRA's accounting and financial management systems arise. At the core of the theory is the view that organisations are "negotiated orders" and all organisational interactions (including the design, maintenance, and change of accounting systems) are characterised by negotiations. The theory further postulates that negotiations are not only central to intra-organisational management processes but also underscore inter-organisational relationships. While the theory might explain most organisational situations, the thesis argued that it is much more applicable to public sector organisations where diverse

[4] One of the major problems identified with the dominant tradition of accounting research by Lowe, Puxty, and Laughlin (1983).

constituencies or interest groups are concerned about and sometimes strongly represented in the management of these organisations. The choice of the perspective was motivated by the recurrence of the view, by organisational actors, that most of the systems (including accounting and finance) which form the basis of their routine interactions are "almost always subject to negotiations" either within the organisation or most frequently between VRA and other external institutions. In particular, organisational actors strongly believed that the negotiations which preceded the establishment of VRA had a tendency to permeate its entire life span. This view is substantiated by the background discussion in Chapter Six. Chapter Six not only showed the significance of negotiations in the management of VRA but also explained the institutional setting which has had strong influence on how VRA's accounting and financial management systems are designed, maintained, and changed over time.

9.2.4 Summary and Reflection on the Empirics

Chapters Four, Seven, and Eight provided interpretive constructions of the empirical evidence of VRA's accounting and financial management systems from a technical perspective, socio-historical perspective, and socioeconomic development perspective. With reference to the thick descriptions of the technical accounting and financial management procedures provided by organisational actors as evidence of their perceptions, Chapter Four argued that it was extremely hard to conclude that the evidence from the VRA supported the deficiency claim. Such a conclusion derived from the existence of accounting control systems which were not significantly different from what would be expected in most advanced Western countries[5]. The systems were not only overwhelmingly perceived as strong (in the technical sense) by organisational actors, but there was also sufficient evidence from external institutions and documentation further supporting these views. The existence of such perceived 'strong' control procedures was attributed to the influence of international financial institutions, such as the World Bank Group,

[5] Although the thesis explicitly avoided a "line by line" comparative analysis between VRA and other Western-based organisations, principally on grounds of significant differences in historical, cultural, and political backgrounds, those descriptions which were provided by organisational actors showed a high degree of influence from Western-based institutions. While this might be perceived as a problem because the systems may not accord with the Ghanaian environment, it could not be denied that at the technical level, they represent important and strong financial control procedures.

which often set standards of "acceptable" accounting and financial management systems for the organisation as conditions for continued financial support[6] (see Killick, 1978; Toye, 1991). To ensure compliance, there was evidence that occasional reviews were undertaken by these international financial institutions to satisfy themselves about the adequacy of the Authority's accounting and financial management systems. Thus such claims in the extant literature about the lack of basic control procedures and "weak" degree of auditor independence could not be upheld in the case of VRA (see Most, 1991). This is supported by the World Bank in one of its reviews of the Authority's systems:

> VRA's accounting and budgeting systems are generally satisfactory and provide timely and reliable financial information (World Bank Report, No. 8207-GH, 1990, p. 10).

Clearly, the World Bank's comment runs counter to most of the conclusions reached in the extant literature as discussed in Chapter Two. Organisational actors also maintained that another important explanation of the strength of the Authority's accounting and financial management systems was its relations with Ontario Hydro, a major power company in Canada. The Authority has a twinning agreement with the Canadian company for the training of its employees not only in financial management but also engineering and general management strategies in the hydro-electric industry. All these external influences emphasize technical effectiveness of accounting and financial management systems at the Authority. Thus, as far as the technical procedures for accounting and financial management are concerned, the thesis found no substantive evidence to support the deficiency claim. However, the research design adopted in this thesis found the need to problematise[7] the simplistic technical view because of the complex institutional setting within which VRA functions and the strong role attached to negotiations (as discerned from interactions with organisational participants) in the design and implementation of accounting and financial management systems at the Authority.

Chapter Seven therefore went behind the technical façade presented by organisational actors to

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[6] Clearly, Marx's view of power as derived from the economic base of society is at play in this relationship.

[7] To uncover the underlying processes of designing these systems and whether the systems reflect the principal rationale for establishing the organisation.

investigate how the accounting and financial management systems arise at the VRA. This was facilitated by drawing upon the negotiated order perspective as a social theoretical lens. The investigation in this chapter provided overwhelming evidence on how the centrality of prior immutable contracts between the Authority and its major customer play a constraining role in the design of accounting and financial management systems at the VRA. In particular the investigation revealed that the 1962 Contract signed between the Ghana Government (on behalf of the Authority) and Valco has a significant influence on the nature of the Authority's accounting and financial management systems. Since the Authority is obliged by law to comply with the provisions of the contract, major organisational issues such as accounting and financial management systems design (particularly pricing of the Authority's products) are accomplished through "negotiations", the only 'permissible' mode of altering the provisions of the contract. The discussion also showed a high degree of political interference in what is conventionally regarded as an issue requiring a logical process of designing and implementing accounting and financial management systems to form a basis for "rational" organisational decision-making (i.e. the issue of power rate determination). A detailed illustration of the 1982-84 negotiations was presented as evidence of how the Authority's pricing structure is determined. It was also revealed that the "constraining" nature of the Authority's pricing structure cascades down to other accounting and financial management issues such as overhead allocation procedures. In terms of the relationship between overhead allocation and pricing of the Authority's products, organisational actors perceived the allocation process as a posterior exercise required to justify a predetermined pricing structure. Indeed, the exact opposite of what conventional accounting logic prescribes in our managerial accounting textbooks. Although overhead allocation was also required for cost efficiency purposes, organisational participants were critical of its relevance because they perceived this as more of a formality than a cost control procedure. In the area of financial reporting, it was found that while there are various parties who are legally entitled to the Authority's accounts, particular attention is given to the requirements of the international financial institutions in preparing the Authority's annual reports. In particular, the thesis uncovered with regard to financial reporting that the Authority's conception of "best practice" as presented in Chapter Four was that which is acceptable to the financiers. It was observed that this over-emphasis on the requirements of financiers is currently generating a significant degree of tension between the Authority and the Ghanaian public. The chapter concluded that by going behind the technical façade to investigate how VRA's accounting and financial management systems arise, the deficiency claim could be supported in another sense. The basis of such a conclusion was that, while the accounting systems are effective for organisational control purposes, they are severely limited by the historical circumstances of the organisation.

Chapter Eight investigated the effectiveness of the Authority's accounting and financial management systems against the backdrop of socioeconomic development, the principal rationale for establishing the organisation. The chapter drew upon the notion of "sustainable development" as the platform for the investigation. It identified two dimensions of sustainable development: the people-centred dimension (social) and the ecological or environmental dimension and attempted to examine the extent to which the Authority's accounting and financial management systems address these issues. Using the current rural/national electrification project as an illustration, it was revealed that the Authority's accounting and financial management systems did not significantly reflect the people-centred dimension of sustainable development. On the other hand the investigation found that significant efforts are currently made to integrate the environmental aspects of the Authority's operations into the mainstream cost and management accounting systems. Despite the significant problems which are currently encountered in seeking appropriate costing methods for environmental issues, the chapter concluded that by taking into consideration the effort that is currently made by VRA against the backdrop of recent publications about unsatisfactory organisational commitments to disclosure of environmental issues in Western countries such as Australia, New Zealand, and the United Kingdom, it would be difficult to describe such efforts as "deficient".

The empirical study of the VRA therefore suggests that while the deficiency claim cannot be completely denied, it is hard to prove in the context of the VRA, especially in the technical sense. Thus the claims about lack of formal control and budgetary procedures, lack of auditor independence, gross embezzlements and misappropriation of funds, lack of competent staff, untimely and inaccurate financial information, and lack of published annual accounts were all unsupported by the evidence found in this study. However, while the absence of these "derogative" assertions is a necessary condition for rejecting the deficiency claim, it is not sufficient to enable a firm conclusion without reference to how these systems arise and how they reflect the overall rationale of the organisation. In terms of how the systems arise, the study found that the negotiations which underlie the design, maintenance, and change of accounting and financial management systems have often produced outcomes which are inconsistent with the primary objective of the Authority. No, indeed, do the systems reflect the "operations on sound commercial lines" or the "promotion of socioeconomic development of Ghana". Rather the study uncovered that the systems (particularly the price structure) are designed to the advantage of a multinational corporation which remains one of the highest profit[8] centres in the aluminium producing world. For the deficiency claim to be completely unsupported, the Authority will need 'sufficient' independence not only in the design of its accounting and financial management systems, but also in the determination of its future direction. The interference of the Ghana Government and other 'external' institutions in the strategic direction of the Authority is causing many of the problems which underscore the current inconsistencies in the Authority's accounting and financial management systems.

9.3.0 Implications of the Thesis for the Domain of Accounting Research

A major implication of this thesis for the domain of accounting research centres on how our current perception of acceptable accounting knowledge might be significantly influenced by our cultural and national backgrounds. The Marxian view that the leading ideas in a society are those which the dominant group finds congenial and acceptable seems to apply to our current knowledge of public sector accounting in developing countries[9]. Implicit in the writings of some symbolic interactionists (Blumer, 1969; Cuff and Payne, 1979), critical theorists (Aitken and Gaffikin, 1987; Arrington and Puxty, 1991; Forrester, 1992; Power and Laughlin, 1992), and radical Marxists or neo-Marxists (Armstrong, 1987; Cooper and Sherer, 1984; Tinker, 1985; Tinker and Neimark, 1987) is the view that society is a continuing tussle between the less privileged and the better placed in society, the capitalist and the proletariat, or even the developed

[8] Profits which are never ploughed back for further development of Ghana but repatriated to an advanced Western capitalist nation, indeed a clear case of neocolonialism.

[9] It must be mentioned that while some of the conclusions reached in the extant third world public sector accounting and financial management literature come from third-world-based researchers, a majority of the writers in this area are Western-based researchers most of whom have never experienced, directly, the shocks of socioeconomic underdevelopment.

and developing world[10].

In that relationship (or tussle), the conclusions of the thesis (particularly those pertaining to the technical effectiveness of the Authority's accounting and financial management systems) suggest that the concerns expressed by Cuff and Payne (1979, p. 100) that there is a high tendency for;

> (i) the more powerful groups [to] control the means of communication in society
> (ii) that they [might] disseminate favourable images of themselves through the channels of communications while conveying derogatory pictures of other groups and
> (iii) the lower status groups, therefore, are not able to speak for themselves to the public at large in the way the powerful can;

need to be taken seriously. Since the deficiency claim could not be supported especially in the technical sense, the thesis is inclined to support the arguments of Cuff and Payne (1979) that a strong possibility exists for some research publications about the less privileged societies such as the emerging view which seeks to associate "deficiency" in public sector financial management and accounting systems with developing countries to mirror this tussle[11]. However, the current dominant mode of seeking knowledge of accounting does not accommodate these important concerns and will therefore continue not to reflect the possibility that cultural imperialism might constrain what becomes accepted as accounting knowledge. Thus an important implication of the thesis is that for public sector accounting research on developing countries to be "meaningful" and produce sufficiently authentic knowledge, researchers will have to seek other "alternative approaches" such as 'interpretive' and 'critical' analysis to enable a deeper understanding of accounting in its social and organisational contexts (see Broadbent and Guthrie, 1992; Burchell et al, 1980; Chua, 1986; Hopper and Powell, 1985). By grounding third world accounting research in the works of such social theorists as Habermas, Giddens, Foucault, and others, accounting researchers are most likely to uncover previously unappreciated and taken-for-granted accounting and financial management issues in these societies. This is because there is a lot that is unknown about these societies for:

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[10] See also the core-peripheral theory explicated in Chapter Two.

[11] The evidence from the study of the VRA supports this argument. There could be many other organisations like the VRA in Ghana or other third world countries.

> We do not, as a matter of course and in the general run of our daily lives, have access to the viewpoints of the less powerful sections of our society. In so far as we are aware of such groupings, it is often only through derogatory accounts provided by the powerful groups (Cuff and Payne 1979, p. 100).

Following the above quote there is a strong possibility that what becomes acceptable knowledge about third world public sector accounting and financial management is a "Western (ethnocentric) view" which might differ significantly (as in the case of the VRA) from the 'actual' conditions in these less privileged countries. In particular accounting research which is grounded in interpretive interactionism would be most encouraged because of the tradition's sympathetic view of 'underdogs'. But it is important to note that such studies will not be promoting "the kind of partisanship which says that the poor, the oppressed , the marginal and the deviant are better than the conventional, the powerful, and the dominant" (Cuff and Payne, 1979, p. 102). Rather these studies would take as their ontological assumption, the concern that the low esteem accorded to the less privileged in society may largely be the question of the conventional, the powerful and the dominant deciding what standards (including public sector financial management and accounting) to be applied to the other groups. Thus to claim that developing countries have "deficient" public sector accounting and financial management systems is perhaps to refer to standards which are determined by the powerful nations of the world (i.e. ethnocentrism or better still cultural imperialism)[12]. However, such standards will have their limitations in terms of their suitability and ability to explain the specific cultural, historical, political, and economic environments of each developing country, as demonstrated in the study of the VRA.

Closely related to the foregoing is the universalistic notion of rationality which, arguably, underlies the deficiency claim as pointed out in Chapter One. By shifting from the dominant scientific paradigm, accounting research on third world countries would be abandoning the search for universal rationalities for context specific notions of rationality. Such studies would be enriched by the specific historical and socio-cultural circumstances of particular third world public sector organisations. It is important to note, however, that the thesis is not concluding that generalisations are unhelpful or impossible, but rather suggesting that more attention has to be

[12] This view is the principal assumption of the large number of comparative studies involving Western capitalist countries and developing countries.

given to how to arrive at generalisations. The thesis is suggesting that formal generalisations might be based on detailed qualitative studies of particular situations. But such generalisations should be made an implicit part of the project as opposed to the conventional scientific mode of generalisation made possible from 'simple' hypothesis testing.

9.3.1 Limitations of the Study

An important limitation of the study centres around the dynamism of the researched organisation. It is almost impossible to capture the "whole story" about VRA because changes occur in the organisation and its environment almost on a daily basis. Two important issues which could not be covered in greater detail are the proposed 300% increase in domestic power rates and the impending renegotiations between the Authority and Valco. The survey of the opinions of the Ghanaian public was conducted before the 300% proposed increase was announced. Thus reactions of the Ghanaian public on this issue were obtained primarily from secondary material, particularly newspaper articles. While a detailed survey of the Ghanaian public on this issue would have been the most suitable for the purpose of this thesis, the cost/benefit analysis of the additional information which the survey could have made possible was rather too high and therefore economically unwise. Since it was an important issue in the Ghanaian economy, sufficient coverage of diverse views (i.e. from the Government's perspective and the ordinary Ghanaian consumers' perspective) was readily available in the local newspapers and on the internet. In fact, most of the relevant information was obtained on the researcher's computer and some Ghanaian newspaper cuttings mailed to the researcher. Thus this limitation had very little effect (if any) on the conclusions of the study.

With regard to the impending VRA-Valco renegotiation, the researcher could not include a detailed discussion of the 1997 renegotiations because they were due to commence after empirical evidence collection for this thesis. While initially this was scoped out on grounds that it would not be economically feasible to make a trip to Ghana for this information, this reason was soon discarded because not only was there a delay in the renegotiations, but the researcher was advised that it would be extremely difficult to obtain any documents or interviews with the negotiating parties since their strategies were still "strongly guarded" (i.e. highly confidential). Organisational actors were of the view that documents on the 1997 renegotiation would only be available after concluding the renegotiations. However, the views of organisational actors on the 1997 renegotiations were extracted and show the direction that organisational actors would like VRA to go in and therefore gives an indication of what VRA might be seeking in the 1997 renegotiations.

Other limitations concern the researcher's acknowledgement that prejudice cannot be completely eliminated in any research endeavour. This ranged from his choice of words to the interpretation of the organisation's histories[13]. It must be mentioned, however, that these are general concerns about the validity of empirical evidence in critical/interpretive studies because of their epistemological and ontological emphasis. In addition, although significant "checks" (including triangulation of methods) were put in place to ensure that organisational actors did not deliberately provide misleading evidence, it is always extremely hard for the researcher to detect a situation were there is 'role-playing' among participants. While the diverse views from organisational actors might not have suggested any form of collusion in providing research evidence, it is possible that some organisational participants were intimidated by the researcher's presence or what their immediate superior would find out from the research report. These are problems which might have an insignificant chance of occurring, but nevertheless cannot be entirely eliminated in both quantitative and qualitative research studies and should be acknowledged as limitations.

Finally, the perceptions drawn from organisational actors seem to suggest that VRA might be an atypical public sector organisation in Ghana or even in the developing world. This view derives from the favourable/positive perceptions organisational actors had whenever they made any comparison between the VRA and other Ghanaian public sector organisations. Thus it is possible for other Ghanaian public sector organisations to differ in their accounting and financial management systems from the evidence obtained at the VRA.

[13] As Tyson (1993) argues, historically, there have been various approaches to writing history and there will continue to be divergence in these approaches. Therefore any attempt to write history should begin with an explication of the lens through which the researcher sees. Thus an acknowledgement of the limitations, as implied by the researcher's way of seeing, serve as an important 'guide' to the reader.

9.3.2 Future Research Directions

The literature survey in Chapter Two showed a tremendous improvement in interest among researchers in this field. However, there still remains a lot that needs to be 'properly' addressed. The researcher's major concern about the extant literature centres on the ontological posture that has been taken regarding the nature of public sector organisations. Almost the entire literature seems to take the celebrated view in managerial theory that public sector organisations are rational, harmonious and cooperative entities. But there are other ways of perceiving or understanding these organisations. For instance, there is the contrasting apocalyptic class conflict view projected by Marxists, and the view taken in this thesis that public sector organisations are politically negotiated orders. Researchers could reexamine some of the issues that have already been addressed drawing upon either the Marxist view or the negotiated order perspective as theoretical guides. In fact there is a general lack of empirical studies which represent accounting as a social and institutional practice within third world public sector organisational contexts. Recent evidence suggests that the majority of the studies which have approached their objectives from this research angle have produced insightful discussions and revelations about accounting in the advanced Western capitalist countries (see Berry et al, 1985; Covaleski and Dirsmith, 1988; Laughlin, 1988). However, in the case of third world accounting research, with notable exceptions, researchers represent accounting as a technical neutral craft at the service of organisations and society. Such a view does play a major constraining role in how accounting is researched in these countries. There is an urgent need for accounting research on developing countries to break this trap. However, as Boland (1989) cautions, third world accounting researchers should also note the danger of being trapped by another viewpoint. The concerns expressed in this paragraph supplement those already raised in section 9.2.0.

In addition, as indicated in Chapter One, the literature seems to take a number of issues for granted and researchers should endeavour to uncover and address these issues. For instance, researchers in this area of the discipline agree almost unanimously that developing countries have "deficient" financial management and accounting systems, but what constitutes a "deficient" public sector financial management system is quite debatable (*supra*, Chapter Two). This thesis presented a pioneering discussion of the issue of deficiency of accounting systems and suggested various factors that could influence any attempts to adjudicate the effectiveness of accounting systems. Major contributions can still be made to the literature by investigating this taken-for-granted question from various theoretical perspectives.

Rather than providing non-empirical descriptive accounts of public sector accounting systems in third world countries or making comparisons between developed and developing countries resulting in simplistic conclusions (an approach which currently dominates the literature), researchers could attempt to replicate the present study within other third world organisational contexts (*supra*, Chapter Two). These would not only provide additional evidence to enable some comparison between third world organisations[14], but also provide a terrain for dealing with some of the limitations of this thesis. Thus, this thesis should be perceived as an introduction to a potential huge area of investigation.

9.4.0 Concluding Remarks

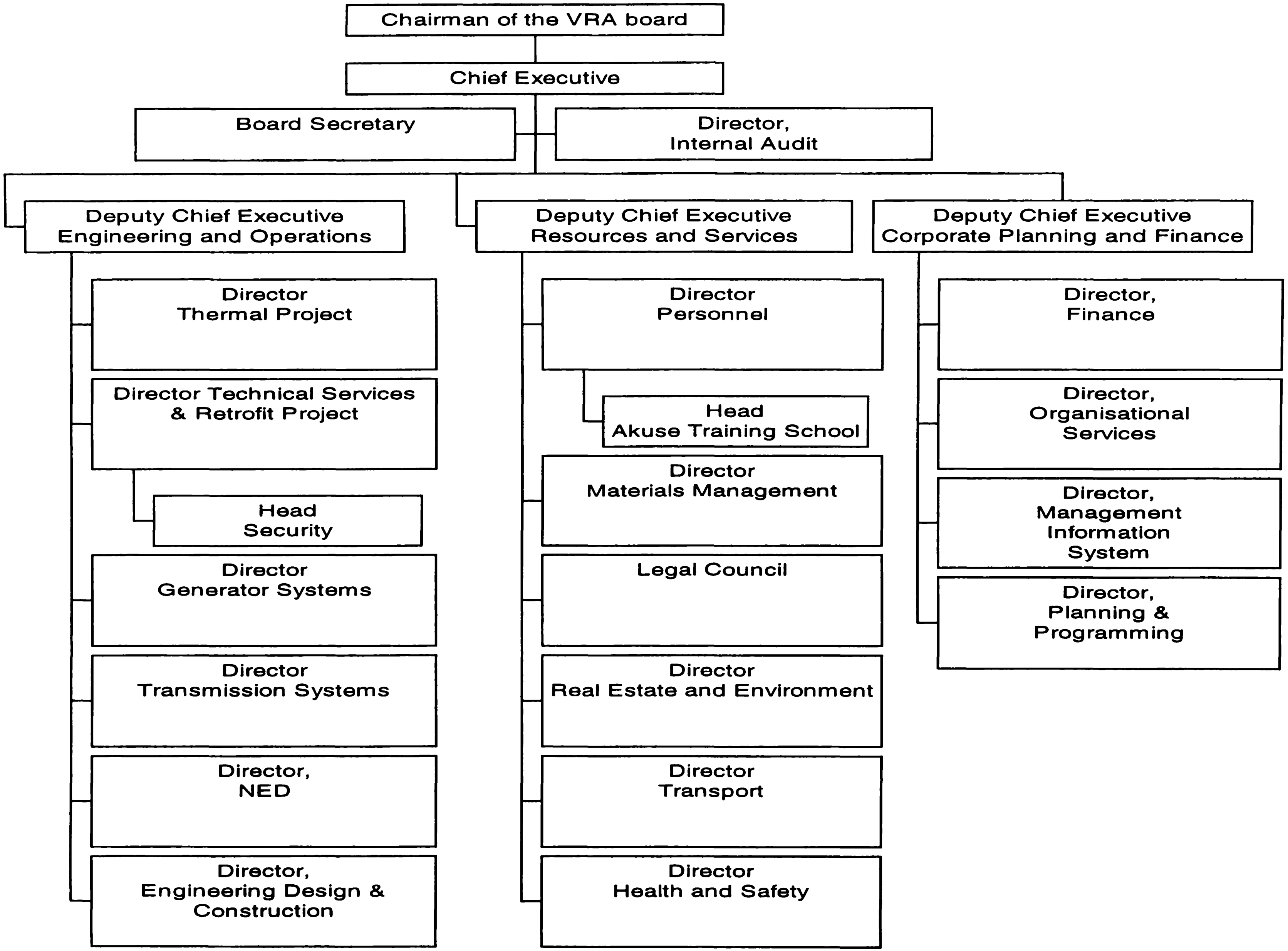
Arm-chair theorising has been a major concern in the domain of accounting research since the middle of this century. While significant progress has been made to empirically investigate major accounting issues and problems in the advanced Western capitalist nations, empirical studies on the group of countries loosely referred to as developing countries are still few. One of the effects of this lack of empirical studies on developing countries is the existence of strong, yet unsubstantiated, generalisations about the nature and effectiveness of the accounting systems in these countries. In the private enterprise sector, there is evidence of how major conclusions and recommendations on accounting in developing countries have been significantly questioned on various grounds including the lack of appreciation of the specific cultural, historical, and political backgrounds of these countries. While such 'critical' evaluations of accounting research in the private enterprise sector became widespread in the late 1970s (see for example Briston, 1978), there still exist major unsubstantiated conclusions on public sector accounting and financial management systems in these countries. This has been the case partly because of the general lack of interest among practitioners and academics alike in public sector accounting research until the early 1980s.

This thesis has therefore provided an important contribution to the literature on third world public

[14] Especially those operating within the same industry e.g. VRA and E.C.G. in Ghana.

sector accounting by exploring one of the issues which accounting researchers have taken for granted over the years. The thesis has challenged the basis of the claim that third world countries generally have deficient public sector accounting and financial management systems through a case study of the Volta River Authority, a major public sector organisation responsible for electricity supply in Ghana and neighbouring countries. The thesis concludes that while there is sufficient evidence to reject the deficiency claim in a technical sense within the context of VRA, when we problematise the simple technical view by taking into consideration how accounting and financial management systems arise at the Authority and the extent to which these systems reflect the principal purpose(s) of the organisation, the deficiency claim might be supported in another sense.

Appendix 1.1: VOLTA RIVER AUTHORITY CORPORATE ORGANISATIONAL STRUCTURE



Appendix 1.2: VRA Corporate Management Levels

Level 0	The VRA Board	"Policy"
Level 1	Chief Executive	"Strategic"
Level 2	Deputy Chief Executives	"Strategic"
Level 3	Heads of Department - Directors	"Operational Functionality"
Level 4	Supervisory Management - Managers/Divisional Heads	"Execution"

Appendix 1.3: Annaul Electricity (Energy) Consumed Per Class of Customer

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total Generated	2,996,191	4,372,026	4,676,301	4,807,877	5,230,598	5,720,863	6,108,668	6,602,366	6,313,115	6,104,843
Total Sold (1)	2,609,364	4,252,017	4,461,237	4,699,641	4,935,994	5,227,722	5,462,656	6,382,022	6,196,836	5,974,177
VALCO	853,175	2,125,090	2,474,998	2,745,343	2,788,480	2,788,500	2,795,159	2,853,643	2,821,877	2,275,447
E.C.G	1,039,386	1,158,449	1,264,763	1,319,028	1,459,502	1,560,812	1,752,777	2,020,733	2,291,416	2,465,673
N.E.D					13,696	66,071	93,233	128,887	151,471	166,797
Mines	257,186	272,835	283,698	296,747	299,598	315,047	407,565	418,539	469,100	589,875
Akosombo Township	7,416	8,517	8,717	10,347	10,200	11,343	16,255	19,364	21,202	15,772
Akosombo Textiles	4,487	7,632	11,658	15,439	16,403	20,599	22,883	28,047	27,129	22,860
Aluworks Ltd	600	5,677	7,415	8,121	7,053	7,195	9,222	11,422	12,218	12,392
Akuse (VRA)			398	5,115	5,412	6,077	6,674	6,910	7,650	6,937
CEB, Lome (2)	447,120	436,290	409,590	299,501	335,650	452,078	358,887	485,097	310,787	400,344
Export To CIE (1)	236835	237477	99292	85349	189779	308962	449962	409380	83987	18082

1. Energy excludes C.I.E consumption of 449,162,900 kWh for 1991.
2. Energy excludes Aflao feedback consumption of 6,087,000 kWh for 1991.

Source: VRA Annual Report and Accounts (1994, p. 28).

Appendix 1.4: Power Statistics - Annual Maximum Demand in KW

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Maximum Demand	529500	690500	673000	709000	765000	812000	856000	912000	880000	924000
Costomer:										
VALCO	185000	304000	298000	338000	340000	360000	350000	351000	351000	334000
ECG	179915	257390	210661	216843	256813	268177	312142	330639	409200	434403
NED					5223	12947	18830	24500	29350	31350
Mines	46861	43940	46788	46692	46693	52688	60216	65584	72347	86172
Akosombo Township	3920	2100	3850	4200	3750	5960	6650	8575	7550	8120
Akosombo Textiles	3060	2100	1950	3000	3201	4368	4272	4320	4000	5288
Aluworks Ltd.	800	600	1350	1200	1371	900	900	1050	2760	2640
VRA Akuse					1260	1300	1360	1435	1635	1490
C.E. du Benin	81500	79854	78500	81000	83417	82000	93000	91336	93697	94778
Export to CIE	76900	77500	73000	68400	79000	117000	110000	102000	45900	74000

Source: VRA Annual Report and Accounts (1994, p. 30).

Appendix 3.1 Letters Seeking Access, Responses and Declaration.

20 February 1996

Prof. R. D. Baeta
Department of Physics
University of Ghana
Legon, Accra.
Ghana.

Dear Prof. Baeta,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

However, Abu Shiraz has always expressed worries about gaining access to VRA for his empirical research and has recommended you as one of the very few who can assist him in gaining access to the VRA. Indeed, the completion of the thesis as we see it depends to a very large extent on the student's ability to gain access to VRA. We strongly believe if Abu Shiraz gets the necessary cooperation from VRA the resultant thesis would be ground-breaking, given his huge academic potential. We would therefore be grateful if you could assist Abu Shiraz in whatever way possible.

We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

20 February 1996

Mr E. A. K. Kalisti
The Chief Executive
Volta River Authority
P. O. Box M. 77
Accra
Ghana.

Dear Mr Kalisti,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

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However, Abu Shiraz has always expressed worries about gaining access to VRA for his empirical research and we would be very grateful if you could grant him access to VRA. Indeed, the completion of the thesis as we see it depends to a very large extent on the student's ability to gain access to VRA. We strongly believe if Abu Shiraz gets the necessary cooperation from VRA the resultant thesis would be ground-breaking, given his huge academic potential. We would therefore be grateful if you could assist Abu Shiraz in whatever way possible.

We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

20 February 1996

Mr. S. Y. M. Quansah
Financial Advisor
Volta River Authority
P. O. Box M. 77
Accra
Ghana.

Dear Mr Quansah,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

However, Abu Shiraz has always expressed worries about gaining access to VRA for his empirical research and we would be very grateful if you could grant him access to VRA. Indeed, the completion of the thesis as we see it depends to a very large extent on the student's ability to gain access to VRA. We strongly believe if Abu Shiraz gets the necessary cooperation from VRA the resultant thesis would be ground-breaking, given his huge academic potential. We would therefore be grateful if you could assist Abu Shiraz in whatever way possible.

We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

20 February 1996

Mr J. Ofedie
The Director of Finance
Volta River Authority
P. O. Box M. 77
Accra
Ghana.

Dear Mr Ofedie,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

However, Abu Shiraz has always expressed worries about gaining access to VRA for his empirical research and we would be very grateful if you could assist him in gaining access to the VRA. Indeed, the completion of the thesis as we see it depends to a very large extent on the student's ability to gain access to VRA. We strongly believe if Abu Shiraz gets the necessary cooperation from VRA the resultant thesis would be ground-breaking, given his huge academic potential. We would therefore be grateful if you could assist Abu Shiraz in whatever way possible.

We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

Mr C. G. Abavana
Director, Northern Electricity Department
Volta River Authority
P. O. Box 77
Tamale
Ghana

Dear Mr Abavana,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

However, Abu Shiraz has always expressed worries about gaining access to VRA for his empirical research and we would be very grateful if you could grant him access to the VRA. Indeed, the completion of the thesis as we see it depends to a very large extent on the student's ability to gain access to VRA. We strongly believe if Abu Shiraz gets the necessary cooperation from VRA the resultant thesis would be ground-breaking, given his huge academic potential. We would therefore be grateful if you could assist Abu Shiraz in whatever way possible.

We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

Mr J. K. Hagan
Managing Director
Electricity Corporation of Ghana
Electro-Volta House
P. O. Box 521
Accra
Ghana

Dear Mr Hagan,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Electricity Corporation of Ghana as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of E.C.G. both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the E.C.G.

As part of his research, Abu Shiraz will like to gain a comparative understanding of accounting systems in the power industry. We would therefore be very grateful if you could grant him access to your organisation for research interviews with principal officers. We strongly believe if Abu Shiraz gets the necessary cooperation from E.C.G. the resultant thesis would be ground-breaking, given his huge academic potential. Any information that Abu Shiraz collects from E.C.G. will be used for the purpose of his research only and treated with utmost confidentiality. He has therefore agreed to sign a declaration to that effect before commencing his field work at E.C.G.

We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

20 February 1996

Mr T. R. Frostenson
Managing Director
Volta Aluminium Company Ltd
Mobil House, Liberia House
P. O. Box 1117
Accra
Ghana

Dear Mr Frostenson,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

As part of his research, Abu Shiraz will like to understand how VRA relates to major power consumers. We would therefore be very grateful if you could grant Abu Shiraz access to carry out his research in your organisation. Indeed, the completion of the thesis as we see it depends to a very large extent on the student's ability to gain access to VALCO. We strongly believe if Abu Shiraz gets the necessary cooperation from VALCO the resultant thesis would be ground-breaking, given his huge academic potential. Any information that Abu Shiraz collects from VALCO will be used for the purpose of his research only and treated with utmost confidentiality. He has therefore agreed to sign a declaration to that effect before commencing his field work at VALCO.

We thank you very much for your assistance.

Yours sincerely,
Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

20 February 1996

The Senior Partner
Deloitte & Touche Chartered Accountants
P. O. Box 453
Accra
Ghana

Dear Sir/Madam,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

As part of his research, Abu Shiraz will like to elicit views from VRA's external accountants. We would therefore be grateful if you could grant him permission to discuss his research interest with principal officers of your firm. Indeed, the completion of the thesis as we see it depends to a very large extent on the student's ability to gain access to Deloitte and Touche. We strongly believe if Abu Shiraz gets the necessary cooperation from Deloitte and Touche the resultant thesis would be ground-breaking, given his huge academic potential. Any information that Abu Shiraz collects from Deloitte and Touche will be used for the purpose of his research and treated with utmost confidentiality. He has therefore agreed to sign a declaration to that effect before commencing his field work with Deloitte and Touche.

We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

20 February 1996

Dr.. Abubakari Al-Hassan
Director, Development Office
University of Ghana
Legon, Accra
Ghana

Dear Dr. Al-Hassan,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

However, Abu Shiraz has always expressed worries about gaining access to VRA for his empirical research and has recommended you as one of the very few who can assist him in gaining access to the VRA. Indeed, the completion of the thesis as we see it depends to a very large extent on the student's ability to gain access to VRA. We strongly believe if Abu Shiraz gets the necessary cooperation from VRA the resultant thesis would be ground-breaking, given his huge academic potential. We would therefore be grateful if you could assist Abu Shiraz in whatever way possible.

We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

20 February 1996

Dr.. Mohammed Ibn Chambas
Deputy Minister, Foreign Affairs
Ministry Post Office
Accra,
Ghana.

Dear Dr. Chambas,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

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We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

Appendix 3.1 Letters Seeking Access and Responses

20 February 1996

Mr I. Ewuntuma[1],
Director CEPS
Ministry Post Office
Accra
Ghana.

Dear Mr Ewuntuma,

We, the PhD supervisory committee, are very pleased to introduce our doctoral candidate, Mr Abu Shiraz Abdul-Rahaman. He joined the department as one of the growing number of international students in March 1994. Following a successful completion of the Master of Management studies degree, he has been enrolled, under our prestigious Ministry of Foreign Affairs and Trade Scholarship, to complete a PhD in Accounting.

His PhD seeks to investigate the nature and effectiveness of public sector accounting and financial management systems through a case study of a particular Ghanaian public sector organisation. Abu Shiraz has been considering the Volta River Authority as the most appropriate organisation that will make the arguments of his thesis more powerful, given the importance of the VRA both locally and internationally. His theoretical perspective and methodological position therefore reflect strong interest in the VRA.

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We thank you very much for your assistance.

Yours sincerely,

Prof. Jim Haslam
Chairperson of Department
Assoc. Prof. Sonja Gallhofer
Assoc. Prof. Stewart Lawrence

---

[1] Former Controller and Accountant General.

Appendix 3.1 Letters Seeking Access and Responses

Formal Research Declaration

I hereby declare that any information that is made available to me by officers of VRA will be;

1. treated with utmost confidentiality;
2. used for research purposes only;
3. informants will be kept anonymous; and
4. analysed collectively.

Thank you for your cooperation.

(signed)

Abdul-Rahaman Abu Shiraz
Doctoral Candidate.

Appendix 3.1 Letters Seeking Access and Responses

Schedule of Research Activities

Period	Activity
10.3.96 -4.4.96	Adjusting and preliminary arrangements including finding relevant documents at VRA Library.
5.4.96-19.4.96	Interviews with officers and observation at VRA (HO)
22.4.96-26.4.96	Interviews with officers and observation at NED
29.4.96-10.5.96	Interviews with officers and observation at Area Offices
13.5.96-17.5.96	Observation and follow-up Discussions at VRA Head Office
20.5.96-24.5.96	Observation and follow-up Discussions at VRA Head Office
27.4.96-29.5..96	Visits to principal VRA sites
30.5.96	Travel to back New Zealand.

VOLTA RIVER AUTHORITY

Cables VOLTA, ACCRA
Phone 64941

P.O. BOX M77,
ACCRA, GHANA

Our Ref.

Your Ref.

Date. 25/3/96

Chairperson
Department of Accounting
The University of Waikato
Private Mail Bag 3105
Hamilton
New Zealand

(Attn: Professor Jim Haslam)

Dear Sir/Madam,

DOCTORAL THESIS ON PUBLIC SECTOR ACCOUNTING AND FINANCIAL MANAGEMENT SYSTEMS - MR. ABU SHIRAZ ABDUL-RAHAMAN, THE UNIVERSITY OF WAIKATO, NEW ZEALAND

We acknowledge receipt and thank you for your letter requesting permission and assistance for your Mr. Abu Shiraz Abdul-Rahaman to collect information from the Volta River Authority (VRA) for his doctoral thesis.

VRA is a wholly state owned organization engaged primarily in the generation and supply of electric power for industrial, commercial and domestic use. It is also responsible for the development of the Volta Lake, as a source of fish, means of transportation and also for the local government administration of the Akosombo township. In co-operation with other public agencies or at the request of Government, VRA undertakes other projects relating particularly to the environmental effects of the formation of the Volta Lake, research and development work appertaining to fisheries, the hydro-biology of the lake, public health, shore-line agriculture and various aspects of resettlement. Due to the kind of business in which we are, the nature, scale and mode of our operations, management and work culture, VRA has acquired a reputable image both locally and internationally. For the same reason the Authority has been a major focal point for several research and development studies.

We would be pleased, ready and willing to extend our courtesy and offer every conceivable assistance to your doctoral candidate, Mr. Abu Shiraz Abdul-Rahaman, in gathering information for his thesis on public sector accounting and financial management systems. In order to enable us to map out appropriate program for the period of his stay and also to make his study more meaningful and beneficial could you please send to us as early as possible,

2/...

i) date of arrival in Accra (Ghana) and flight details for Mr. Abu Shiraz Abdul-Rahaman

ii) his detailed schedule of activities with dates

iii) duration for the study

iv) his contact address in Accra, Ghana (if necessary).

As you rightly noted, we would expect Mr. Abdul-Rahaman to treat the information he collects from VRA with the utmost confidentiality that it deserves. A formal declaration of this matter would be required of him prior to the commencement of his study in VRA. We also wish to make it crystal clear that while we would be willing and prepared to offer our facilities for Mr. Abdul-Rahaman's study we would not be responsible financially for his stay in Ghana.

Meanwhile, we wish to thank you very sincerely for the interest you have shown in VRA and look forward to a fruitful and mutually beneficial co-operation with your Mr. Abu Shiraz Abdul-Rahaman during his field work with VRA.

Yours sincerely,

E.A.K. Kalitsi
CHIEF EXECUTIVE

cc: Prof. Ato Ghartey,
Controller and Accountant General,
Accra.

VOLTA RIVER AUTHORITY

Phone: 664941/221124
Telex: 2022 VOLTA GH.
Fax: 233-21 662610

P.O. Box M.77,
ACCRA, GHANA.

Our Ref. 009/009/3078
Your Ref.

Date:

19th August, 1996

The Chairperson
Dept. of Accounting
The University of Waikato
School of Management Studies
Te Whare Wananga o Waikato
Private Bag 3105, Hamilton
New Zealand

Dear Sir,

THESIS: MR. ABU SHIRAZ ABDUL RAHAMAN

We write to acknowledge the receipt of your letter dated 25th July, 1996 on the above-mentioned subject.

We are glad Mr. Rahaman obtained the assistance required from the Authority to gather the necessary data for his thesis. We would be grateful if a copy could be forwarded for our library in due course.

We take this opportunity to assure you that the Authority is always ready to co-operate with your university whenever such assistance is required.

Yours faithfully,

J.S. Okpoti
DEPUTY CHIEF EXEC.(R&S)

wos/lets31

In case of reply, the number and date of this letter should be quoted.

My Ref. No... ....

Your Ref. No.........................

Tel. No. 664145-47

REPUBLIC OF GHANA

OFFICE OF THE
CONTROLLER AND ACCOUNTANT GENERAL
P. O. BOX M. 79
ACCRA

1st March, 1996

MR. E. A. K. KALATSI
CHIEF EXECUTIVE
VOLTA RIVER AUTHORITY
ACCRA, GHANA

Dear Sir,

DOCTORAL DISSERTATION ON PUBLIC SECTOR ACCOUNTING AND FINANCIAL MANAGEMENT SYSTEMS

MR. ABU SHIRAZ ABDUL-RAHAMAN
THE UNIVERSITY OF WAIKATO, NEW ZEALAND

Please find attached a self explanatory letter requesting for permission and assistance for Mr. Abdul-Rahaman of The University of Waikato, New Zealand, to collect data from the Volta River Authority for his doctoral thesis.

I would be grateful if you could offer him the required courtesy and assistance.

Prof. Ato Ghartey
Controller & Accountant-General

cc: Professor Jim Haslam
Chairperson
Department of Accounting
The University of Waikato
Private Bag 3105

Appendix 3.2: A Detailed List of Interviewees

Mr. A. Addy	Director, Legal Services
Mr. A. Bayor	Ag. Director, N.E.D.
Mr. A. Wiafe	Director, Transmission, Tema
Mr. A. Zulee	Corporate Planning and programming
Mr. Acheampong Sankudie	Area Finance Office, N.E.D.
Mr. Acquah Arhin	Manager &Ag. Director, Internal Audit
Mr. Anthony Ahiable	Finance Department, Head Office
Mr. Asanti Okine	Corporate Planning and Programming
Prof. R. D. Baeta	University of Ghana, Legon
Mr. Bona Phillip	Area Finance Manager, Akosombo
Mr. Bright Obeng-Boampong	Finance Department, Head Office
Mr. Bright Puni	Area Finance, Akuse
Mr. C. G. Abavana	Director, N.E.D.
Mr. C. S. Tetteh	Director of Finance, E.C.G.
Mr. D. K. Avisey	Superannuation
Mr. David Oppong	Area Finance Office, N.E.D.
Mr. E. L. A. Crentsil	Finance Department, Head Office
Mr. Ebo Acquah	Corporate Planning and Programming
Mr. Emmauel Afagbegee	Finance Department, Head Office
Mr. Eric Yankah	Director, Materials Management
Mr. F. K. Yeboah	Director, Real Estate and environment
Ms Fati N. Attah	Area Finance Office, N.E.D.
Mr. Francis Adunah	Area Finance Office, N.E.D.
Mr. Fred Aidam	Finance Department, Head Office
Mr. G. O. Dokyi	Deputy Chief Executive, E&O
Mr. Gaddiel Robert	Internal audit
Mr. George Abogo	Area Finance Office, N.E.D.
Mr. George Agyarko	Area Finance Manager, Akuse
Mr. Godwin Ayaare	Area Finance Office, N.E.D.
Mr. H. T. Ahorlu	Finance department, Head Office
Mr. I. Nsiah-Twumasi	Area Finance, Akuse
Mr. J. Ofedie	Director of Finance
Mr. J. S. Okpoti	Deputy Chief Executive,
Mr. John K. Hagan	Managing Director, E.C.G.
Mr. K. M. E. Ellis	Director, Corporate Planning and Programming
Mr. K. O. Ayisi	Finance Department, Head Office
Mr. Ken Obeng	Area Finance Office, N.E.D.
Mr. Kofi Andoh	Finance Department, Head Office
Mrs. Lucy Perbi-Nyarko	Area Finance Office, N.E.D.
Mr. M. A. C. Addo	Director, Organisation Services Department
Mr. M. O. Sackey	Organisation Services Department
Mr. Mahama Amadu	Commercial Manager, N.E.D.
Nana Yaw Ampaw	Finance Department, Head Office
Ms. Philomena Bruce	M.I.S, Head Office

Mr. Raymond Teye	Area Finance, Akuse
Mr. S. A. Akonnor	Area Finance, Akuse
Mr. S. Y. M. Quansah	Financial Advisor, Head Office
Mr. Sampson A. Darko	Area Finance, Akuse
Mr. Tony Mends	Senior Consultant, State Enterprises Commission

Appendix 3.3: Summarised Research Objective and Unstructured Questions.

Research Objective

Research on public sector accounting and financial management has attracted relatively little interest among academics and practitioners alike. However, the current public sector reforms sweeping through most countries seem to present an opportunity for a change in the trend. Research into this new trend (particularly on developing countries) is currently dominated by non-empirical studies which have very strong implications for the extant literature.

The principal objective of this thesis is to provide an empirical investigation into the nature and effectiveness of public sector accounting in a third world organisational context. In particular, the thesis aims to empirically evaluate the substance of some important conclusions (generalisations in the current literature) about the nature of accounting and financial management in third world public sector organisations. To achieve this objective, the thesis proposes a case study method involving the VRA. Specifically, the main questions that this thesis seek to address are;

1. How are financial resources managed at VRA?
2. What systems are in place for the management of financial resources at the VRA and how do these systems arise?
3. To what extent could these systems be described as "deficient"? or In what respects are these systems "deficient"?

To address these issues, information is required on;

1. The history of VRA.
2. How VRA's operations are funded.
3. The organisation's performance over the years since its establishment.
4. The opinions of the principal and financial officers of VRA on the organisation's accounting and financial management systems.
5. VRA's relations with its major customers (i.e. Valco and ECG).
6. VRA's relations with funding agencies (e.g. IMF and World Bank).
7. VRA's relations with domestic consumers.
8. VRA's relations with its autonomous branches.
9. Any other information that the officers of VRA deem relevant for the thesis.

It is my conviction that these issues will stimulate a lot of interesting discussions that will put me in a better position to gain an empirically informed understanding of VRA's systems of accounting and financial resource management.

Appendix 3.3: Questions for Departments Other than Finance

1. Please tell me about your background (i.e. your qualifications, previous work experience and any other things you will like to say about yourself by way of an introduction).

2. What does your role at VRA involve?

3. What changes have you observed in your role over the years?

4. How does the Finance Department affect your role (i.e. In what ways are your routine activities related to the Finance Department?).

5. What is your evaluation of the Finance Department in terms of the services they provide to you or the organisation as a whole?

6. What is your evaluation of the Finance Department in terms of the services they provide to external constituencies such as the funding agencies, the Ghana Government, and the Ghanaian public?

7. What is your opinion on the contract between VRA and Valco?

8. What changes will you expect in the impending renegotiation between VRA and Valco?

9. What is your overall assessment (as an insider) of the VRA's financial management ability?

10. What do you consider to be the most important event in the history of the VRA?

Appendix 3.3: Specific Questions for Various Divisions of the Finance Department

1. Please tell me about your background (i.e. your qualifications, previous work experience and any other things you will like to say about yourself by way of an introduction).

2. How are financial resources managed at the VRA? (i.e. tell me about the various ways in which financial resources are managed).

3. In what ways is your Division contributing to the management of financial resources at the VRA? Describe your daily routine to me.

4. What changes have occurred in your Division's approach to financial resource management over the years?

5. What problems are currently encountered by your Division in carrying out your functions (i.e. delays, constraints from within and without the VRA)?

6. How did the systems you have in place arise? (i.e. why are the systems the way they are?).

7. To what extent do you consider the requirements of international funding agencies important in your daily routine at the VRA?

8. To what extent do you consider the requirements of other constituencies (such as the Ghana Government, major customers, and the Ghanaian public) important in your daily routine.

9. Are there any other organisations, persons, or institutions who you find to have a strong influence on the way you go about your daily routine?

10. What changes will you like to see in your daily routine?

11. What is your opinion about the contract between VRA and Valco?

12. What specific changes will you like to see in the impending renegotiation between VRA and Valco?

13. What is your overall assessment of VRA's accounting and financial management systems?

14. What do you consider to be the most important event in the history of VRA and why?

Appendix 3.4: Survey of the Ghanaian Public: Questionnaire

Introduction

I am Ghanaian student pursuing doctoral studies in Accounting at the University of Waikato. My study seeks to investigate the nature and effectiveness of the accounting and financial management systems at the Volta River Authority. As part of the process, I am seeking the opinions of domestic electricity consumers on aspects of my project. I would therefore be very grateful if you could answer the following ten question as honestly as possible and to the best of your ability. I will sign a legally enforceable declaration to ensure confidentiality and the protection of your identity.

PLEASE CIRCLE THE MULTI-CHOICE ANSWERS

Part A: The Selection Criteria

a. Are you a home owner? a. Yes b. No

b. Do you pay up to half of the electricity bill in the house you live in? a. Yes B. No

c. **If you do not currently consume electricity, will you like to connect to the national grid?**
a. Yes b. No.

d. **If "No" could you please explain why?**

....
....
....

Part B: Principal Questions

1. How long have you been a consumer of electricity

a. 0-5 years b. 5-10 years c. 10-15 years d. 20 years and over

2. Do you think the services provided by VRA are (Do you expect the services of VRA to be)

a. poor b. adequate c. good d. excellent e. don't know

3. What is your average electricity bill/ how much do you expect to pay for electricity per month?

a. C0 - C5000 b.C5000-C.10,000 c. C11000-C15,000 d. over C15,000

4. How often do you read VRA's Annual Reports and Accounts?

a. Never b. Once c. Couple of times d. Always

5. What difficulty do you have in reading VRA's Annual Reports and Accounts?

a. lack of time b. financial pressures c. illiteracy d. fear of political power.

6. Which of the following would you (most) like to see disclosed in VRA's Annual Reports

a. Corporate Profits b. Environmental issues c. Employees' relations d. All three

7. As part of the requirements of the World Bank for its continued financial support of the VRA, fixed assets are revalued every five years. This is to ensure a satisfactory measurement of VRA's performance and involves a significant amount of money paid to consultants. Do you consider this;

a. necessary b. a waste of money c. a good control measure d. don't know

8. Do you know how the VRA is funded?

a. Yes b. Know

9. The 1962 Contract between Valco and VRA requires VRA to make available for Valco a significant proportion of the electricity output (two-thirds) for a rate that is less than domestic rates (i.e. about 20% of domestic rates). This was necessary for the project to get started. Do you feel Valco should now pay;

a. same b. 50% of domestic rates c. 100% of domestic rates d. More than domestic consumers.

10. If the government decides to privatise VRA what will be your opinion?

a. support b. oppose c. indifferent

11. What image do you think the average Ghanaian electricity consumer has of the VRA, in terms of its overall contribution to Ghana's socioeconomic development?

a. bad b. good c. very good d. excellent e. don't know.

12. Please provide any other comments about the overall management and/or performance of the VRA.

....

....

....

Appendix 4.1: VRA Corporate Strategic Direction for the Next Planning Cycle (1997 Onwards) *Source: VRA Memo on 15th April 1996 from Director of Planning and Programming*

Evidence of the corporate strategic direction of the VRA which was produced by organizational actors in support of their perspectives is reproduced below:

The current Corporate Plan for the Volta River Authority which is about to be approved by the VRA board, was reviewed in the light of corporate issues and challenges that were likely to impact the business of the Authority for the short to medium term, the period between 1996-2000. The critical issues and challenges identified and addressed are as follows:

Energy Demand/Supply

Uncertain Hydrological situation in the Volta Basin
Construction, Management and Operation of the new 300 MW Takoradi Thermal Plant
Demands of the National Electrification Scheme
Developments in the VRA's Power Export Markets
Product Quality and Consumer Services.

Environmental, Public Health and Community Welfare

Safety on the Volta Lake

Human Resources and Institutional Reforms

Capacity Building in New Functional Areas
Formal Succession Planning
Ghana's Power Sector Reform and its Impact
Management Information Technology and Integrated Communications Planning

Financial Stability and Corporate Image

Tariffs and Increasing Operations Costs
NED's Financial Viability
Corporate Relations

This next time around, for the period 1997 - 2001, the Planning and Programming Department is preparing the grounds to roll forward the Corporate Plan for the next five years. We have to examine further the business environment of the Authority through elaborate scanning in collaboration with other management personnel from Transmission Systems, Finance Personnel and Engineering, Construction & Design Departments of VRA. The constituted management team has looked at the business environment valuable dialogue and consensus building among the members on the issues as highlighted below:

Energy markets Developments
International/Global Uncertainties
Sub-Regional Influences

Government Policies
Corporate Finance
Main Products & Services (Production)
Technology
Human Resources & Capabilities
Organisation/Governance/Management

The team's deliberations, views and opinions indicated that:

1. Current trends in the electricity sub-sector of the global economy are making more electric/power utilities in many countries move away from solely state-ownership to private participation marked by vigorous competition. It is believed that the Government of Ghana, through the Ministry of Energy and Mines is preparing to undertake strong institutional, legal and regulatory reform of programme for the Power sector of Ghana in view of the events of the global economy. The reform programme is expected to promote efficiency and private participation in the electricity sub-sector, and that VRA will be seen one day entering a new business era marked by privatization and competition in its core business. The concern therefore, is that, the Authority will require a re-definition of its Corporate Vision, Corporate Mission and Corporate Business Strategy in the light of new challenges and requirements for increased commercialisation and improved business efficiency.

The teams discussions considered a business strategy such as running some Departments/Units as business units.

Service Units with some revenue earning potential (e.g. VRA Hospital, Akosombo International School) need to be re-organised with some level of autonomy and converted to partial self-supporting profit centres.

Further, the issue of re-structuring the core business Departments of VRA (Generation, Transmission and Distribution) into business units could be carefully thought about and policies formulated to operate them with some limited autonomy on pilot basis before the Power Sector Reform in Ghana is carried through.

Other Service Units (e.g. Engineering, Transport, Legal, Real Estates, Materials Management, Management Information Systems) will also be run as separate business units and operated to offer engineering, legal, haulage, cross-country transport, purchasing, computer systems operation, goods clearing services to VRA Departments, other outside institutions and individuals on sound commercial basis with profit maximisation as the guiding principle.

The business strategy as discussed above, calls for the creation and staffing of those Departments to be affected by the commercial/business orientation, with Budget/Financial Planning Units to initiate the process of introducing basic elements of business/financial planning and management.

Finally, the Authority is called upon to re-examine its range of existing support services with the view to privatising or out-sourcing selected non-sensitive ones (e.g. Catering Services, Printing, Security) with strategic and cost-effective approach.

2. Manpower issues in business have become so critical everywhere in the world and in Ghana, in particular that most companies have to undertake serious manpower re-structuring, re-trenchment, re-training, etc in order to operate competitively.

The Power Sector Reform to take place in Ghana could bring about more manpower issues and challenges to VRA. This could be in varied dimensions, for example VRA is the only institution in the country at the moment, where expertise in the fields of generation, transmission, distribution, power economics/finance, etc could be tapped. Many of the most qualified staff may leave the authority and work for newly established electric utility companies because of better remuneration conditions of service.

VRA's personnel cost as a percentage of sales revenue has ranged from 6.8% in 1991, 10.5% in 1992 to 9.5% in 1994. Currently, salary negotiations have only started with the aim of adjusting salaries offered to VRA staff and the ratio could increase higher than 1994 level. The issue is, personnel cost trends may not be alarming now, however, there is clearly a n urgent need to rationalise the massive job vacancies in the Authority through the current manpower audit and vacancy re-allocation or reduction, else staff numbers may become a problem in future.

The strategy to be formulated are varied but could be anyone of the following:

VRA will need to formulate a clear-cut policy on growth in staff levels such that labour increases will be matched with adequate work load that will be driven by factors of efficiency and effectiveness.

Fashion out a very attractive remuneration/compensation and benefits packages for staff that may be implemented over a period of time in anticipation of the labour market competition in the electricity sub-sector.

Put in place training and development opportunities to staff at all levels to ensure that suitable staff are available to meet the Authority's need and all staff are motivated to service the customers' needs and to be more effective and efficient.

A corporate effort to diversify and develop new businesses that will help to create new jobs will help compensate for loss of VRA jobs that have resulted from the Power sector Reform or may change due to the application of new business improvement techniques.

3. With the new era of competition in the electric utility business all over the world, total operating costs of most utilities are under critical watch.

The Authority's total operating cost to sales revenue has built up from 46% in 1991, 58% in 1992, 70% in 1994 and its expected to increase sharply after the commission of the Takoradi Thermal Plant in 1997. It is believed that a policy on cost-efficiency should be put in place to address this threat and to guide all VRA Departments.

The strategies to be implemented are varied but anyone of the following or all could be considered:

All Departments would be encouraged and empowered to define a programme for cost reduction/cost efficiency each year with the view to

- Identifying and cutting areas of apparent waste of resources
- Relating high expenditure areas with output/services to determine whether these expenditures are worthwhile
- Improving or maintaining quality of service without necessarily increasing cost
- Re-directing more work effort/resources towards business areas which add value to corporate output and services.

Introduce Activity-based budgeting system with its built-in cost reduction approach.

Establish a systematic re-examination of the cost structures of every Department/Unit.

4. On the energy markets, the team anticipates a potential threat coming from the Natural/Liquified Petroleum Gas producers in securing part of the existing or future markets of the electricity sub-sector. The market for Natural/LP Gas is significantly growing in Ghana. This is because, consumers are gradually shifting from the use of electricity and other sources of energy for domestic/commercial/industrial heating to Natural/LP Gas.

On completion and operation of the Nigeria-Benin-Togo-Ghana Gas Pipeline, Tano Gas Fields and Cote d'Ivoire Gas projects, VRA is likely to face keen competition in the energy market. The Authority will lose some of its foreign and local markets to natural/LP Gas producers because of relatively low Natural/LP Gas price.

Appendix 6.1: VRA's LONG TERM LOANS

	Original Loan C'000	No.	Drawings as at 31.12.94, C000	Repayments/Ajustments as at 31.12.94, C'000	Exchange Variation, C000	Balance, C'000
AKOSOMBO HYDRO PROJECT						
Int. Bank for Reconstruction and Development, IBRD 618 GH	5,655,900	1	5,655,900	(5,655,900)	Nil	Nil
CIDA	6,870,404	2	6,825,251	(5,295,582)	Nil	1,529,669
Ghana Government	1,282	3	1,282			1,282
KPONG HYDRO PROJECT						
IBRD 1380 GH	40,986,270	4	40,986,270	(34,428,467)	5,665,621	12,223,424
European Dev. Fund (EDF)	11,570,193	5	10,821,750	(2,575,697)	696,551	8,942,604
Saudi Fund for Dev. (S.F.D.	35,963,719	6	35,963,719	(28,508,349)	(3,174,665)	4,280,705
Kuwait Fund	48,963,002	7	48,963,719	(37,621,290)	(2,373,776)	8,967,936
CIDA	26,194,350	9	26,194,350	0		26,194,350
Opec Fund 120P	3,888,441	10	3,888,441	(2,900,567)		987,874
BADEA	8,836,597	10a	8,836,597	(8,836,597)		0
SYSTEMS IMPROVEMENT						
Opec Fund 192P	6,305,580	11	6,305,580	(3,993,534)		2,312,046
Mediocredito Centrale	9,248,184	12	9,248,184			9,248,184
IDA No. 1628 GH	3,077,076	13	2,844,268			2,844,268
Danida	5,220,379	14	5,220,379			5,220,379
ODA	6,795,923	14	6,795,923			6,795,923
	219577300		**218551613**	**-129815983**	**813731**	**89548644**

Source: VRA Annual Reports and Accounts (1994, p. 59).

Appendix 6.2: Average Power Rates Charged By BPA and VRA to Aluminium Smelters (U.S. Mills/KWH)

	Bonneville Power Administration	Volta River Authority
1938-1966	2.0	n.a
1967-1972 Sept. 30	2.0	2.625
1972 Oct. 1st - 1973 Feb. 28th	2.0	2.75
1973 March 1st - 1974 Dec. 31st	2.0	3.25
1975	3.0	3.25
1976	3.2	4.5
1977	2.2	4.5
1978	2.6	4.5
1979	3.0	4.6
1980	4.9	4.6
1981	7.5	5.0
1982	19.3	5.0
1983	22.5	5.0

Appendix 7.1: VRA: Annual Energy Consumption Per Class of Customer (1966-1984)

Year	ECG (GWH)	Mines (GWH)	Akos. Tex'l (GHW)	Akos T'ship (GWH)	Valco (GWH)	C.E.B (GWH)	Totals (GWH)
1966	300.90	127.20	-	2.70	13.90	-	4,44.70
1967	360.30	164.10	-	6.30	923.20	-	1,453.90
1968	420.10	177.40	2.00	6.80	1,865.90	-	2,472.20
1969	502.80	185.50	6.30	6.80	1,972.20	-	2,673.60
1970	564.80	206.80	14.85	7.20	2,012.40	-	2,806.05
1971	659.25	226.50	20.82	8.81	1,919.00	-	2,834.37
1972	699.45	242.64	20.94	9.01	2,263.81	1.26	3,237.10
1973	768.12	243.07	21.98	12.54	2,625.99	99.72	3,771.41
1974	893.46	257.02	19.27	11.06	2,734.77	127.78	4,043.33
1975	893.17	271.02	22.57	11.50	2,518.24	136.70	3,853.20
1976	980.01	278.28	22.98	9.68	2,644.89	153.34	4,091.17
1977	1,034.70	260.27	24.31	11.00	2,783.61	178.81	4,292.70
1978	1,062.84	250.25	24.15	11.33	2,086.38	216.63	3,651.57
1979	1,027.76	259.34	17.60	13.01	2,907.53	299.25	4,524.49
1980	1,074.71	271.85	11.53	13.14	3,318.68	439.77	5,129.68
1981	1,115.33	273.99	6.56	9.53	3,303.24	472.19	5,180.83
1982	1,00.29	257.78	1.93	8.77	3,008.71	521.46	4,798.92
1983	948.04	232.49	2.97	8.09	752.93	490.78	2,453.33
1984	799.05	218.83	4.22	7.44	13.18	316.89	1,359.60
	15,105.06	**4,404.29**	**244.96**	**174.68**	**39,668.60**	**3,456.57**	**63,054.14**

Source: Adapted from : *VRA Accounts*
Sims and Casely-Hayford (1985, p. 27).

Appendix: 7.2: Letters from Valco to VRA.

(VALCO) VOLTA ALUMINIUM COMPANY LIMITED

May 1, 1981

Volta River Authority
P.O. Box 1477
Accra, Ghana

Attention, Mr. Louis Casely-Hayford
Cal of Executive

Gentlemen,

For the record Valco is submitting the enclosed respond to the written statement by Mr. Louis Casely-Hayford, Chief Executive, on April 23, 1981.

We will be responding separately to the offer VRA proposed on the April 23 meeting.

Very truly yours,

(Sgd) Ward B. Saunders, Jr.

May 1, 1981

RESPONSE TO STATEMENT OF MR. LOUIS CASELY-HAYFORD

DATED APRIL 13, 1981

1) The Volco proposal of March 27, 1981 included a lump sum payment of $2,125,000. The payment is the amount which would be payable to VRA through 1980 if the present escalating formula is to be corrected as proposed in Valco's lottor to VRA dated March 30, 1979. The payment would be a one-time payment only since after 1980, the March 27 proposal contemplated deletion of the present escalation provisions and substitution of special price increases at specified dates.

Contrary to VRA's statement, we believe that the March 27 proposal is a substantial improvement over the February 27 offer.

2. Valco's position remains that the power pride is Governed by a valid contract and if the supplier want to amend the contract on the grounds that the contract prices produce inadequate revenue, it is up to the supplier to satisfy its customer as to its need and to quantify the additional revenue.

3. To the extent that VRA has or will incur cost increases in supplying the 370 MW of power from Akosombo and the 30MW of power from Kpong, Valco agrees that it should bear its appropriate share of such cost increases. The present power contract attempts to do this and to the extent the contract provisions are inadequate to do so, Valco is prepared to consider appropriate amendments. Further as illustrated by the March 27 offer, Valco is prepared to provide additional funds to meet other of VRA's needs. However, Valco does not agree that mere increases in the cost of obtaining power from other sources justify discarding the present contractual arrangements.

4. Volco fully recognised that without Akosombo it could not exists. A dependable source of power is necessary, and Valco is grateful for the care and attention VRA devote to this task. Our profits are a matter of record and are by no means exorbitant or unreasonable. Any profits determined on a historical cost basis (which overstates profits on a constant currency basis) are shared with the Government of Ghana in the form of tax payments and with the people of Ghana in the form of Valco Fund payment.

5. VRA suggests that the price of power set in arms length negotiations by sovereign government and a private company should be discarded completely and replaced by a "fair price". This ignores the legal and equitable rights and obligations of the respective parties to observe the present agreement. Valco's tax rate is stabilised for 30 years as set forth in the February 8, 1962 agreement. It is fixed at 40%. Whether the rate applicable generally is above or below 40%. This is not "the lowest tax rate borne by any corporate entity in Ghana. Under the provisions of SLCD 5, a company exporting at least 25% of its of its output is rebated 50% of the tax and hence has an effective tax rate, significantly lower than Valco's rate.

6. The March 27, 1981 offer provided specific rate increases for funds to VRA for broad

purposes identified by VRA. This arrangement would in no fashion make VRA a "client to be supervised by Valco".

7. Valco agrees with VRA.

8 Valco notes that VRA stated it does not desire to impose an intolerable burden on Valco, yet at the same time suggests amending the existing contractual arrangements merely because VRA desires such an increase to a rate initially from 12 to 18 mills in the period 1981 to 1983. No justification is gievn for such an increase except VRA's allegation that if the Valco-VRA power rate were to be negotiated for the first time, such a rate would be justified by prevailing power rates in other areas.

This approach ignores VRA contractual obligations entered into in good faith by the parties and provides no proper basis for an amendment to the contact.

We note the willingness of VRA to substitute escalation based upon changes in the price of primary aluminium rather than the present concept which relates escalation to changes in VRA's operating costs.

9. VRA's proposal is noted and will be responded to in due course. Valco finds the last sentence in paragraph 9 to be too vague and unclear to govern a contract of this nature. The phrase is too subjective to varying interpretations.

10. Valco does not agree that any subsidisation by other VRA customers is involved. Valco's present rated provide VRA with more than VRA's cost of providing power to Valco.

Appendix 7.2A: Letter from Valco to VRA.

VOLTA ALUMINIUM COMPANY LIMITED

Septmber 1, 1981

L. I. McADAMS
RESIDENT DIRECTOR
J. V. I. PHILIPS
RESIDENT MANAGER

Mr Louis Casely-Hayford,
Chief Executive,
Volta River Authority,
P. O. Box M-77,
ACCRA.

Dear Sir,

Enclosed is a document entitled "Valco's Comments on the VRA Documents dated August 27, 1981 relating to Valco's documents of May 1, 1981 and May 8, 1981".

This is supplied for the record.

Very truly yours,
VOLTA ALUMINIUM COMPANY LIMITED

L. J. McAdams
RESIDENT DIRECTOR

P.O. BOX 625, TEMA, GHANA. TELEPHONE: 6711/1203-6 TELEX: 2160 TEMA
P.O. BOX 117, ACCRA, GHANA. TELEPHONE: 64921 EXT. 235 TELEX: 2160 TEMA.

VALCO'S COMMENTS ON TWO VRA DOCUMENTS DATED AUGUST 27, 1981 RELATING TO VALCO'S DOCUMENTS OF MAY 1, 1981 AND MAY 8, 1981

Both documents contain numerous statements with which valco does not agree. If desired, Valco will enumerate these differences but it seems to Valco it is more useful to summarise Valco's position on the fundamental difference in approach between VRA and Valco.

1. Valco insists that the Power Contract between VRA and Valco is a Valid contractual obligation on both parties and Valco is both required and entitled to purchase electricity in accordance with its terms, including price.

2. There are no changes in circumstances which have occurred since the contract was amended in 1977 which entitle either party to legally require the other party to change the contract provisions. VRA cites no legal authority for its alleged tight; indeed, English jurisprudence on this point makes very clear that hardship resulting from increased expense, inconvenience, loss or other difficulties that render performance more onerous than expected provide no grounds for relief from contractual obligations. See, for example, Paradine V. Jane, 82 Eng. Rep. 897 (K.B 1947); Tsakirglou & Co., Ltd. v. Noblee & Thor Cmbh, (1961) 2 A11 E.R. 179, at 184; Amalgamated Investment & Property Co. Ltd. v John Walker & Sons, Ltd., (1976) 3 A11 E.R. 509. The courts obviously do not agree that contractual commitment are untenable anachronisms in any of the circumstances applicable to the Power Contract.

3. Nevertheless it is abundantly clear that Valco and VRA have the authority, subject to obtaining necessary consents required under various documents to which the parties are subject, and are capable of amending the Power Contract as mutually agreed.

4. Valco's existence as an operating entity depends upon receiving a continuous supply of electricity and Valco desires to cooperate with and assist VRA to enable VRA to continue to be a dependable supplier of electricity. Such assistance can

and has in the past included amendment of the Power Contract to increase the price paid to the extent mutually agreed.

5. Based upon historical accounting data (Which is the basis used by Valco for financial reporting and in computing profits for purposes of income tax and Valco Fund) VRA's cost of supplying energy to VALCO is well below VRA's sales price to Valco. VRA makes a profit on all energy sold to Valco. VRA's cost of energy to Valco in 1980 was 3.35 US mills per KWH, and the price (as corrected) was 4.98 US mills per KWH. VRA has been supplied with supporting calculation.

6. To the extent that VRA needs additional profit to provide for expenditures for specific projects, Valco is prepared to consider increases in rates to provide funds for such purposes.
VRA has rejected such an approach and has persisted in insisting upon the power price being changed to what VRA describes as being a fair and reasonable rate developed as if the parties were participating in a de novo bargaining session.

7. The basic consideration given to Valco for providing the contractual basis whereby Akosombo was financed and constructed was a right to up to 370 MW of power at a fixed price for 30 years. Valco fully carried out its part of the bargain and VRA obtained the Akosombo hydroelectric installation. The arrangements were in no manner top-sided or inequitable in character.

VRA's costs of prociding power to Valco were largely fixed when the Akosombo installation was completed as the financing obtainable by virtue of the Valco long term take or pay contract was for fixed interest rate loans payable installments over a long period of time. Only operating costs are subject to increase costs in an inflationary world and these ae partialy offset by reduction in interest payment as the principal amount of the loan is reduced.

8 Valco and its shareholders were never insured against the busines risks of the smelter in Ghana. There is no insurance against risk of power failure due to force majeure and as demonstrated in 1977 and 1978, only a limited protection against other causes of power failure. Loans entered into to build the plant have been reduced but substantial amounts are still due. Valco and its shareholders, having fully complied with the conditions and obligations imposed upon them whether or not such loand have been repaid or the plant amortized. Total plant and equipment at cost at the end od 1980 was $215 million of which US $135 million remained unamountized. The statement that the plant is fully amortized is not correct.

9 For the record:

1. Valco's agreement with paragraph 7 of the statement of April 23 is with the words:

   "VRA however believes that Valco shares its desire that this tariff question be settled amicably and as early as possible"

2. Valco and its shareholders will continue to comply with the obligations undertaken with respect to the Volta Development and Smelter and requests that the other parties thereto do likewise. Any presently foreseeable hazards can be handled within the contractual provisions.

3. VRA is requested to review Valco's computation of the amount involved in the "Contratual error" and advise as to its agreement or corrected data.

4. Valco and its shareholders have and will continue to face all the business risks outside of Valco's control, such as force majeure interruptions of power supply, price of aluminum and the costs of raw materials,supplies and equipment, wages and salaries and other operating costs.

Valco,
August 31, 1981

Appendix 7.3: Letter from P.N.D.C. Co-ordinating Secretary to Valco.

COPY

Reference No.SCR/0331

OFFICE OF THE P.N.D.C
P.O. BOX 1627,
CASTLE-OSU
ACCRA

7th December, 1982

Dear Sir,

In February, 1962, a number of agreements were entered into in respect of the Volta River Project by the Government of Ghana and its agency, the Volta River Authority (VRA), on the one hand, with your company, the Volta Aluminium Company Limited (VALCO), on the other hand.

2. The said Agreements assured to Valco a special regime of fiscal and legal concessions which have endured virtually intact for over twenty years.

3. The combined affect of the concessions to Valco, particularly the low and uneconomic rates it pay for services provided to it, deprives Ghana of an adequate rate of return on her investments. This situation puts in serious jeopardy Ghana's ability to continue to provide the services upon which Valco is dependant.

4. However, justified these concessions may have been at the time they were granted, the evidence of Valco's commercial success over the years has demonstrated that the concessions are no longer needed to guarantee Valco's profitability.

5. The economic and other assumptions on which the Agreements were predicated are no longer valid. Changes in world financial and economic circumstances have rendered the present terms of the Valco Agreements inadequate and largely unacceptable to the government and the people of Ghana.

6 The restraints imposed by the Agreements on Ghana's legislative competence particularly in fiscal matters are now generally rejected as inadmissible.

7. Consequently, the Government of Ghana considers that a major restructuring of the agreements between itself and Valco is overdue. Such restructuring would be aimed at achieving reasonable, fair and economic rates of return for both Valco and the Government and the people of Ghana.

8. Accordingly, the Government of Ghana hereby invites you to arrange for appropriately authorised representatives of Valco to meet similarly authorised representatives of the Government and people of Ghana, for the purpose of renegotiating the said Agreements.

THE MANAGING DIRECTOR
THE VOLTA ALUMINIUM COMPANY LTD
MOBILE HOUSE
P.O.BOX 2549
ACCRA.

9. The Government of Ghana proposes that the negotiations commence in Accra at ten hours (10.00) Greenwich Mean Tine on the 14th day of February, 1983, continuing from day to day till agreement is reached, but for a period not exceeding six months from the date of commencement of negotiations.

10 The agenda proposed by the Government of Ghana for the negotiations, at a serious reasonable and fair set of agreements. It is the hope of the people of Ghana that Valco's conduct in the forthcoming negotiations will vindicate the public posotion taken by your representatives that the 1962 Agreements are "not bedded in granite as some people think"_

Yours faithfully,

(SGD.) P.V. OBENG
PNDC CO-ORDINATING SECRETARY

CC: The Chairman/PNDC

The PNDC Secretary For
Lands & Natural Resources.

Appendix 7.3A: Letter From Technical Team on Valco Agreements

TECHNICAL COMMITTEE ON VOLCO AGREEMENTS

September 26, 83

SCR/W.51.G/SF.2/VOL.2

VERY CONFIDENTIAL INFORMATION

PNDC Secretary,
Min. of Lands & Nat. Resources,
Accra.

Attn: Mr. J. G.A. Renner

NEW DEVELOPMENT IN NEGOTIATIONS WITH VALCO

At the meeting of the Committee held on September 21, 1983, a verbal report was received from the VRA mission which visited the World Bank recently. Attached herewith is a brief type-written report from a member of that mission headed "Valco's approach to the World Bank."

2. To recap, the report indicated that Valco, acting by its parent, Kaiser Aluminium of Oakland, USA, had initiated certain moves. It would seem that Mr. Connel Maier, President of Kaiser contacted the World Bank President, Mr. Calusen, who happens to be old business acquaintance of the Kaiser management from his days as head of the Californian giant Bank of America.

3. As a result of this contact, World Bank senior management are showing a great deal of interest in the negotiations with Valco and the energy division of the Bank are under pressure to find out what the true position is. The VRA mission saw correspondence exchanged between Valco and the World Bank and pointed questions were put to them on Valco's future operations in Ghana.

4. As a matter of fact, Volco has written seeking the opinion of the World Bank on whether it should continue its operations in Ghana. Volco has asked the Bank for data and its prognosis of rainfall in Ghana in order to determine whether the Volta reservoir is likely to be recharged by rainfall and thus ensure the power supply. Volco has also given and account of the negotiations to the Bank where by it stated our opening positions on all issues as Government positions. In the discussions with the VRA mission, officials of the Bank appeared to be giving indications of what the final positions on issues being negotiated, should be; for instance, it was mentioned that 15 mills, in the opinion of the Bank, would be our adequate point to conclude

negotiations on the power issue. Most alarming of all is the revelation that a meeting between the Bank and Valco has been set up for the last week in September!

5. The Committee is concerned that there should seem to be consultation going on between Valco and the World Bank to the exclusion of Ghana at a time when the Government and Valco are engaged in negotiating matters in respect of which the Bank cannot claim to be a disinterested third party. Without seeking to be alarmist in this respect, Valco could reach certain understandings with the Bank which would then be presented as their proposals in the negotiations. This would amount to presenting Ghana with a fair accompli, amounting to an imposition.

6. It is noteworthy that the VRA mission happened to have been carrying along with them a copy of the Government Statement issued after negotiations broke down. This was submitted to the Bank officials and information has it that it was sent right up to the President's (Clausen) office. It seems also that in spite of our efforts to brief people here - viz OECD meeting to which World Bank representative was invited and for which he had a copy of the statement submitted to his office - officials at the Bank did not appear to know anything of the Government's stand except for what Valco had represented to them.

7. Another development. By a letter dated 16 September (copy attached herewith) Valco informed Dr. Botchway of the fact that their proposals were ready and would be sent either to his office in Accra or, if Dr. Botchwey chose otherwise, through the Embassy in Washington to him during his mission. Dr Botcyway had already left Accra when we were informed of the receipt of this letter from Valco. A reply has however gone out to Valco (copy attached herewith dated 21 September) requesting them to submit the proposals to Accra.

8. Taking the foregoing together, the committee suggests that Dr. Botchwey be briefed as fully as possible of Valco's moves at the World Bank. It may be useful for Dr. Botchwey to hold a briefing session for the World Bank officials on Government's positions in the negotiations with Volco. However, Due to other pressing issues of larger import or for some other reasons, Dr. Botchwey may not be able to deal with the matter in great depth. In that case, it may be wise for him to leave the matter open. A mission to Washington could then be arranged at a later date after consultations with you and Dr. Botchwey when you have returned home.

9. The committee is concerned that the World Bank should not be exposed only to representations emanating from Volco/Kaiser. The Committee is also concerned that the Government may have imposed on it positions agreed between Valco and the World Bank dressed up as proposals emanating from Valco. The Committee is further concerned that Dr. Botchwey's discussions and negotiations may be compromised in some way by this apparent hinkage between Valco/Kaiser and the World Bank. In the meantime Valco's proposals are being awaited with interest.

10. This is for your information and necessary action, please.

(KWAME ASANTE)
DEPUTY CHAIRMAN

Appendix 7.4: Consequences of a Unilateral termination of the 1962 Agreements by the Government.

Effect of Complete Shutdown by Valco on VRA's Operations

1. Total loss of Valco Revenue presently equal to C44 million or US $16 million per annum.

2. Approximately 370 MW supply immediately available and practically not usable over the next 3 - 5 years since;

   a. No local industry can pick this load over the next 4 - 5 years hence above cannot be sold or distributed locally.
   B. Line capacity restricts supply to CEB until the VRA/CEB portion of the VRA/CEB/NEPA line project is implemented. This will take a maximum of 3 years. CEB may then take an additional 70 MW leaving the balance to be disposed of to NEPA if the line to Nigeria is completed.
   c. Purchase from Ivory Coast on the intertie cannot exceed 100 MW because of line limitations. Actual purchases cannot be quantified.

3. Probable recall of external loans on the Volta development.

4. No new capital developments can be implemented. Projects under construction may be stalled since interest payments may be delayed and internal cash generation may not be sufficient enough to meet these commitments as well as operational needs.

5. Operational costs may far weigh revenue gains hence continued operation of the Authority's facilities may be impaired.

6. The Authority can use the resultant period of no supply as a storage period to allow Volta reservoir recover to normal operation levels, since the reservoir at this time is at an all time low and may take a couple of years or more to build up depending on the inflows into the reservoir.

7.4: Magnitude of Specific Financial Burden to be Borne by Government in case of Unilateral Action.

I. External debt Service Obligations:	1983	1984
	($' 000)	($' 000)
Net Interest	8,511	8,626
Amortisation	13,898	14,597
	---------	---------
	22,409	23,223
Less C.E.B. Revenue	12,098	12,375
Net Financial Burden	10,311	10,848

II. Value of Loans Liable for Recall as at September 30, 1982.

1. Akosombo Project	$ 40.4 million
2. Kpong Project	$ 167.7 million
3. Power system Improvement	$ 3.4 million
4. Ghana-Ivory Coast Intertie	$ 3.0 million
5. Volta Region Electrification	$ 1.0 million
6. Volta Transport System	$ 4.8 million
Total	$221.8 million

III. Value of Withdrawn loan commitments liable to be cancelled

1. Akosombo Project	$ 0 million
2. Kpong Project	$ 7.1 million
3. Power Systems Improvement	$ 2.6
4. Ghana-Ivory Coast Intertie	$ 9.9 million
5. Volta Region Electrification	$ 10.4 million
6. Volta Lake Transport System	$ 25.7 million

IV. Ongoing Capital Projects which will be places at risk

	Estimated Value	
	C	$
1. Ghana Ivory coast Intertie	12 million	17.0
2. Volta Region Electrification	7 million	1 million
3. Volta Lake System	60 million	80 million
4. Power systems rehabilitation &		
Supplies		25.2

V. Planned Capital Projects which will be placed at risk

1. Bui Hydroelectric Project	$ 600 million
2. Northern Line Grid extension to	
Brong Ahafo, Northern & Upper regions	$ 80 million
3. Volta Region Electrification Phase II	$ 25 million

VI. Revenue loss from surplus power

370 mw at % US mills per kilowatt hour = approximately 16 million

VII. The Authority's Debt Funding Reserve Position

The total fund available as at the end of December 1982 is approximately US $25.5 million.

Appendix 7.4: Specific Provisions in VRA Loan Agreements which would Become Effective should the Government Decide to take Unilateral Action

List of the Lending Agencies

1. World Bank Loan No. 310 GH (Akosombo), $47 million, 1961.

2. World bank Loan No. 618 GH: Akosombo expansion project $6 million, 23 June 1969.

3. World bank Loan No. 1380 GH (Kpong), $ 39m 1977.

4. CIDA Loan (Akosombo) Can.$ 7.897 million, 24 July 1969.
   Main: CIDA and Ghana.
   Sub: Ghana and VRA.
5. CIDA Loan (Kpong) Can. $35, 10th January 1977.
   Main: CIDA and Ghana.
   Sub: Ghana and VRA.
6. CIDA Loan (VRA Training School), Can. $ 3 million, 17 November 1981.
   Main: CIDA and Ghana.
   Sub: Ghana and VRA.
7. KFW Loan (Volta Region Electrification) DM 28 million, October 1979.
   Main: KFW and Ghana.
   Sub: Ghana and VRA.
8. KFW Loan (Improvement of VLTS) DM 75.2 million, May 4, 1980.
   Main: KFW and Ghana.
   Sub: Ghana and VRA.
9. KFW Loan (Rehabilitation of fisheries on the Volta Lake) DM 2.8 million, 14 May 1980.
   Main: KFW and Ghana.
   Sub: Ghana and VRA.
10. EIB Loan (Kpong) EUA 10 million (approximately $11m), 16 December 1976.

11. E.I.B. Loan (Ghana-Ivory Coast Intertie) E U A 6 million; (US $ 8.4 million), April 5, 1980.

12. EEC Commission/EDF (Kpong) E U A 8.98 million (US $10m), June 3, 1977.

13. ADB Loan (Ghana Ivory Coast Intertie) UA 6.24 million (US $ 8.11m), May 14, 1979.

14. Arab Bank for Economic Development in Africa (BADEA), (Kpong) $10 million, April 10, 1977.

15. OPEC Loan (VRA Systems Improvement) 1980, US $ 6 million.

Main: OPEC and Ghana.

Sub: Ghana and VRA.

16. OPEC Loan (Kpong) 1978, US $ 3.7 million.

Main: OPEC and Ghana.

Sub: Ghana and VRA .

17. Kuwait fund for Arab Economic development, Loan No. 97 (Kpong) KD 12.97 million, April 25, 1977.

Main: Kuwait Fund and Ghana.

Sub: Ghana and VRA.

18. Saudi Fund for development Loan (Kpong) Loan No. 1/34, SR 105.9 million.

Main: SFD and Ghana.

Sub: Ghana and VRA.

19 AID Loan (Akosombo) $ 27 million, 1961.

Main: AID and Ghana.

Sub: Ghana and VRA.

20. Eximbank Loan (Akosombo) 10 million, 1961.

21. U.K. Government loan - Paid off.

Appendix 7.4: Specific Loan Provisions to be triggered by Unilateral action.

1. World bank Loan No. 618 - Akosombo $ 6 million.

    Article VI - Remedies of the Bank.

    Guarantee Agreement Article II.

    General Conditions: Article VI - acceleration of maturity.

2. First CIDA Loan (Akosombo).

    Article IV - Cancellation and suspension.

3. CIDA Loan (Kpong) Can. $ 35 million.

    Article IV - cancellation and suspension.

4. CIDA Loan (VRA Training School) Can. $ 3 million.

    Article IV - cancellation and suspension.

    Subsidiary loan article V - Remedies of the Government.

5. KFW Loan (Volta Region Electrification) DM 28 million.

    Article 5 - suspension of disbursement and premature payment.

    Subsidiary loan Article 4.

6. KFW Loan (Volta Lake Transport System) DM 72.2 million.

    Article 5 - suspension of disbursement and premature payment.

    Subsidiary loan article.

7. KFW Loan (Ferries) DM 2.8 million.

    Article 5 - Suspension of disbursement and premature payment.

8. EIB Loan (Kpong) US 11 million.

    Article 1.07 cancellation of credit.

    Article 10 - early repayment in the event of default, etc.

9. EIB Loan - Ghana/Ivory Coast Intertie) EUA 6 million (US $ 8.4 million).

Article 1.05 - suspension of disbursement.

Article 1.08 - cancellation of credit.

Article 10 - early payment in the event of default, etc.

10. EEC/EDF Loan (Kpong) EUA 8.98 million (US $ 10 million).

Article 10 - early payment in the event of default, etc.

Guarantee Agreement Article 2 - Liability of Guarantor .

11. ADB Loan (Ghana/Ivory Coast).

12. BADEA Loan (Kpong) $ 10 million.

Article 6 p. 13 - cancellation and suspension.

13. OPEC Loan (VRA systems improvement) US $ 6 million.

Article 4 - Acceleration of maturity suspension and cancellation.

Subsidiary Loan Article 4.

14. Kuwait Fund Loan (Kpong) KD. 12.97 million.

Article V - cancellation and suspension.

15. AID Loan No. 187 (Akosombo) US $ 10 million.

Article IX - Remedies of the DLF (AID).

16. Exim - Authority Loan (Akosombo) US $ 10 million.

Article XVII - Events of default.

17. Saudi Fund Loan (Kpong) SR 105.9 million.

Article V - Remedies of the fund.

18. U.K. Government Loan (ECGD) (Akosombo) - Paid off.

Appendix 7.5: Computation of Average Power Rate to Aluminium Smelters in the World (From the Perspective of the Government Team).

Location	**Capacity ('000 tpy)**	**Power Rate (mills/kwh)**
Latin America	1,065	7.1
Africa	249	13.2
India	367	27.7
Middle East	369	8.4
Australia and New Zealand	927	12.1
Japan	336	50.1
Korea	18	32.5
Canada	159	7.0
U.S.A.	4,313	21.6
Europe	3,285	16.0
Total/Average	**11,088**	**18.0**

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