Determinents of Public Utility's Performance

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DETERMINENTS OF PUBLIC UTILITY'S PERFORMANCE

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Abstract

Organizations under public ownership have earned the dubious distinction that nonperformance is the hallmark of public ownership and even any improvement can at best be only ephemeral. Several agencies based and democracy based theories have explained why they cannot perform. But no study has addressed the significant variations in their performance and tried to explain these variations in terms of motivations of the owner-government and the agent-manager. This paper addresses this question. Public ownership is not a homogeneous concept and the agent manager's discretion, which largely determines the strategic behaviour of the organization is conditioned by the type of demands the government puts on the organization and the diligence with which the government's goals are pursued. The paper explores the connection between the expectations of the external actors, the owners and resource providers and the firm's managers on the strategy formulation of the organization which in turn shape the structure, controls, incentives and processes of the organization, which ultimately determine the performance. The paper draws from the study of two electric utilities in India and one in Thailand, all of them being State owned.

Introduction

Public enterprises have a long history dating back to Roam Empire and Old Testament in European history and to the Maurya Period in Indian History. There were in two areas: monopolies, like electricity, railroad etc. and industries which had a high tax collection potential, like tobacco, liquor etc. The World War II gave an impetus to the growth of State Owned Enterprises (SOEs), in areas of high risk and low or no return, like manufacturing of synthetic rubber and also in industries, which were acquired from the enemy, like Renault in France (Aharoni & Vernon, 1981).

The problems started when the governments had to *run* these enterprises. What should be the optimal relationship between the government and SOE? The autonomy-accountability literature tried to address this issue, but it turned out to be verbiage and no precise relationship with clear expectations and outcomes emerged. The principal-agent theory suggested that because of the existence of multiple principals and multiple objectives, the SOE manager has greater freedom since he can manipulate one objective against the other and can take the SOE in the direction of *his* perception of public interest or in the extreme, to serve his own self interest. The literature on SOEs in democracies postulates that the political agents use the SOEs as an instrument to win elections and consequently the politician and bureaucrat extract the rent out of SOE to benefit either themselves or their constituencies.

In the 1980's a paradigm shift occurred and emphasis was on the *privatization* of SOEs in many countries. This happened mainly due to the continued nonperformance of SOEs, coupled with a change in philosophy that government should not be in business. The major thrust came from Marget Thacher, who led the privatization blitzkrieg in UK. The fall of USSR and the

subsequent glasnost which made public disillusionment with communism acted as catalyst to this. Simultaneously, the World Bank suffering from a funds squeeze on the one hand and a pressure to promote the gospel of privatization on the other, effected a major policy shift in its lending to Governments. It started funds with conditions that many large projects be shifted to the private production domain. There was by now a firm belief that anything under public ownership will be inefficient, ipso-facto.

The focus of the present study is to reexamine this proposition. We start with a premise that a wide variation exists in the performance of SOEs, even in the same industry. We studied two public utilities (State Electricity Boards) in India and one public electric utility in Thailand, and found that there were striking differences in performance of these three public utilities. We then attributed these differences to organizational factors like, organizations' structure, control systems and processes. Then we went further back and traced the differences in the structures and processes to the strategic behaviour of the organizations. This, in turn is influenced by the Government's expectations on one-hand and SOE managers' interests on the other.

The study is presented in three sections. The first section looks at the performance differences in the organizations, compares the structure, control systems and processes of these organizations and then looks at the strategies of these organizations. Finally, it links the differences in the organization's structure, control systems and processes to the difference in strategies of these organizations and its impact on the performance. The second section focuses on the development of conceptual framework to understand the top management's strategic orientation, which shapes the strategies of the organizations in response to the demands of the State. The third section integrates the conceptual framework with the findings from the three electricity utilities.

Section I

What accounts for the differential performance of organizations under the same public ownership? To unravel this, we chose three electricity utilities, Maharastra State Electricity Board (MSEB)[1] and Uttar Pradesh State Electricity Board (UPSEB)[2] from India and Provincial Electricity Authority (PEA)[3] from Thailand. We found that there is lot of variation in their performance, both on commercial and social dimensions (See Table 1).

Table 1: Variation in Performance of Public Electric Utilities

Parameters	PEA (1998)	MSEB (1998-99)	UPSEB (1998-99)
Commercial parameters:			
Average Tariff* (US cents)	5.25	4.64	4
Rate of Return**	7.8%	4.5% (0.33)	4.11% (-17.5)
Receivables	39 days	157 days	458 days
Losses***	5.94%	14.14%	22.83%
Sales/Employee****	1.60 MU	0.59 MU	0.47 MU
Customer/Employee****	352	159	127
Social parameter:			
% Village Electrified	98.87	100	55.14

* 1$= 45 Rupees and 1$= 40 Baht

** Return is calculated on net fixed assets for PEA and on capital base for SEBs [return on net fixed assets for MSEB is 0.15% (2.61), while for UPSEB is 3.05% (-12.09) and the figures in bracket indicate return without subsidies].

*** Transmission loss of 4% are deducted from T & D loss to get the distribution losses for MSEB and UPSEB. However, these reported figures were until recently fudged. MSEB claimed a loss of 28% recently before the Regulatory Commission and UPSEB's losses would be even higher.

**** To calculate employees in distribution for SEBs, 70:30 ratio is taken for employees in generation & transmission to distribution

[1] MSEB is supplying electricity to the state of Maharastra, India, except for the major areas of Mumbai city.
[2] UPSEB is supplying electricity in the state of Uttar Pradesh, India
[3] PEA is an electricity distribution company in Thailand and supplying electricity to provincial areas of Thailand except for the metropolitan areas of Bangkok city.

From Table 1, it is seen that PEA, MSEB and UPSEB have turned in best, average and poor performances on commercial dimension. On Social dimension, PEA and MSEB have done well, while UPSEB has fared poorly on this as well. To understand the reasons for the differences in the performance, we look at the structure, control systems and processes related to electricity distribution in these organizations.

Organizational Structure

PEA and MSEB have *tailored the organizational structure to the needs.* Thus, they have different structures in urban and rural areas with different levels of centralization, specialization and integration in these areas. This differentiation is not there in UPSEB. Besides, the organization structure is much more delayered in PEA than in the Indian SEBs. In PEA, the lowest office 4 reports directly to the office 1 depending on its location, while in both the SEBs, each office has to report to only next higher office in the hierarchy. PEA and MSEB have functional specialization in each office in operations, which helps them to have better functioning and accountability. For example, general administration, technical and finance functions are well separated. This explicit separation is lacking in UPSEB, which has resulted in lack of accountability. In both the Indian SEBs, cadre lines are sharply drawn between engineers and accounts personnel and only an engineer could be the head of the office. This results in internecine conflicts and lack of coordination among the functionaries. This is not the case in PEA where head of the office is designated as 'manager' and s/he could be from any function.

The responsibility centers in PEA and MSEB are intermediate offices in the hierarchy and have sufficient powers. While in UPSEB, responsibility center is almost at the lowest level in the hierarchy and does not have proper authority and resources. It has taken a toll on performance.

PEA and MSEB have technical support function at the field office levels to support the operational staff. In UPSEB, operational staff has to do planning, material arrangement and reporting without any support for specialized tasks. Further, the level of work specialization at operation staff level is less in SEBs compared to PEA. This affects the quality of performance because of dilution of responsibility on the one hand and absence of focus on the other.

Control Systems

PEA sets clear operational targets for its employees to achieve and has a well-oiled planning and budgeting process, which is both bottom up and top down. The SEBs on the other hand plan only for investment but lack clear operational targets. Besides the Plans are always top down, and there is no finality to the Plans because the funds for expansion have to mainly come from the Government, and the Government itself does not have a clear allocation for power sector. Thus the SEBs attach no sanctity for planning. In contrast in PEA, the action plans bear the imprint of commitment to reach targets from all operating units from below and firmness of commitment of funds from above. The budgeting in both the SEBs is without involvement of operational staff and the operating staff in turn cite lack of allocation of funds as excuse for their failed commitment to complete tasks.

PEA is mainly a distribution entity supplying to the whole of Thailand, except for the Bangkok metropolitan region and buys electricity from other generators. This naturally provides for unbundling of generation and distribution, which greatly helps in distribution cost control. The SEBs, both produce and buy electricity, but have no accounting unbundling between generation, transmission and distribution. This blunts the ability of SEB managements to adopt any profit center based control mechanism for improving financial performance on an area basis.

In PEA, responsibility is decentralized with required autonomy and operational units are responsible for performance in order to achieve overall organizational goals. The decentralization of responsibility induces a sense of commitment for the employees. The profit and cost center approach with Key Performance Indicators (KPIs) and performance monitoring against the targets for each KPI makes units responsible to achieve the organizational goals in PEA. On the other hand, responsibility in both the SEBs has been decentralized but without counterpart authority and without proper targets to be achieved by them. This has resulted in ineffective performance monitoring sans targets, except on revenue collection. Even, in the case of revenue collection targets, they are set without reference to the revenue demand. This weakness is extreme for UPSEB, where the head office has very little control over its area offices in terms of either accounting control or energy audit.

The information system for monitoring and control in SEBs is not appropriate due to lack of use of IT and interconnectivity. It requires manual efforts, which restricts information processing capabilities. Due to this, information system is not able to provide timely feedback and help in decision-making process. In MSEB, there is off-line type of use of IT in commercial information and some level of interconnectivity, thus proving to be better than UPSEB, but not up to the standards of PEA.

The *incentive system* to motivate employees to perform, is totally missing in UPSEB, while in PEA and MSEB, it is there in some form. There is an honour system in PEA and some promotion based on merit and 'selection' in MSEB. In UPSEB, it is totally seniority based, totally disempowering bosses. Being government organizations, the punishment system is almost absent in all the three organizations.

Processes

The metering process in both the SEBs is less efficient compared to PEA due to lack of automation. However, in PEA and MSEB, this process is carefully planned and scheduled recognizing the importance of revenue collection. The automated metering process in vogue in PEA has the following advantages:

- The automation of metering process eliminates manual intervention and provides online validation facility to avoid defective meter reading. This helps in raising almost 100% of the bills based on meter reading. Manual intervention in meter reading leaves scope for errors and fudging and non-recording by meter readers in SEBs. Because of automated metering process, almost all consumers are billed on actual meter reading in PEA, while the percentage of non-reading of meters, due to defective meters or other reasons is very high in MSEB and UPSEB. These figures are approximately 20% and 40%.
- Automation of metering process also allows taking more reading in a day because of reduced time for meter reading. This is evident from the frequency of meter reading, which is short, viz. monthly for all consumers in PEA, while in both the SEBs, the frequency of meter reading is mostly bimonthly/quarterly for all the consumers except for very small number of consumers, where it monthly.
- The inefficient meter reading is one of the major sources of energy losses. The energy losses in PEA are only 5.94% in 1998. The energy losses for different urban areas in MSEB (technical losses + theft) range from a low of 6.9% to a high of 30.44% in with most of other areas in the range of 20% in 1998-99. The Maharastra Electricity Regulatory Commission has given a figure of 28% for the whole MSEB, based on sample readings for agriculture

consumption, which is un-metered. The figures of losses in distribution for UPSEB in urban areas are from 10% to 45%, with average around 35% in 1998-99. The regulatory commission has put energy losses of 40% in UPSEB.

The billing process due to electronic data transfer from meters to billing units and from billing units to computer centers in PEA results in faster and efficient billing process. In MSEB, this process, though not electronic, is still more effective than in UPSEB due to centralized data punching and submission. PEA has interconnected all of its offices through satellite, MSEB has limited interconnectivity, while UPSEB has made no use of IT at all.

Automation of metering process and online data transfer reduce staff and working capital requirements (WCR), which in turn enhance the Rate of Return. WCR for residential consumers was 18 days (worth of revenue) for PEA, 52 days for Urban and 82 days for Rural consumers for MSEB and 85 days for UPSEB. For the large industry and commercial consumers, it was 30, 33-37 and 37-50 for the three utilities respectively, thus maintaining the same ranks. The number of wrong bills needing correction is also high in SEBs, where in PEA it is only 5-10 bills in 10,000 consumers. The bills to be corrected in MSEB ranges around 25%, while in UPSEB, they are in the range of 40%.

In PEA and MSEB, gangs separate from the routine operation and maintenance are formed to disconnect the consumers who do not pay bills in time. This has resulted in disconnection being a routine activity in PEA and MSEB. However, in UPSEB, disconnection is still a type of special activity undertaken during the last 6 months of the year because the same staff is used, which is more busy in earlier months in maintenance. Due to delay in preparation of disconnection lists because of time taken in data recording, the disconnection action is taken late in both the SEBs,

except for urban areas in MSEB, where data is recorded fast. The effect of the disconnection policy shows up in receivables. PEA has only 39 days receivables including 180 days for government connections. The overall collection is more than 95% against the demand raised. While in MSEB, receivables are of 157 days and in UPSEB, receivables are of 458 days.

The maintenance system in PEA and MSEB is better than in UPSEB due to work specialization on the one hand and separate provision of funds in the budget on the other. The monitoring of quality indicators in PEA necessitates the units to do preventive maintenance to avoid defects occurring in the first place. In MSEB, preventive maintenance is done for the High Tension (HT) system because interruptions are reported at this level.

We see from the above comparative analysis that there are difference in the structure, control systems and process of these organizations, which has an impact on their performance. Now we look back, see why there is difference and trace these differences to differences in strategies of these organizations.

Strategy

PEA has formulated its strategic intent, whereas both the SEBs are not having long term strategy. The lack of vision and mission statements in SEBs also shows the lack of organizations' aspirations. Both the SEBs do not have any written objectives other than objectives as per the Electricity Supply Act 1948 to set directions for themselves.

The objective of PEA is to be a *commercially oriented and customer focused efficient utility*. For the SEBs, while there are no explicit objectives, the implied agenda is to meet the demand. In doing so, MSEB would concentrate on giving good supply to subsidizing consumers, while

UPSEB would try to collect revenue to meet its salary bill. For ensuring commerciality, PEA has identified Key Results Areas (KRAs) to focus on and within each KRA, it has identified Key Performance Indicators (KPIs), with both long-term and short-term targets. This makes clear to employees the short-term and long-term expectations of the organization from them. This target setting is missing in SEBs.

PEA and MSEB are using the strategy of *differentiation* among customers, to enhance revenue. PEA is focusing on high margin market by giving them personal attention. MSEB is focusing on urban areas to improve efficiency in these areas and giving special attention to HT consumers, who have higher tariffs. However, both the SEBs lack customer care, due to lack of standards for services, which are in PEA. PEA is also using IT as a strategic tool to enhance revenue. *We see that there are differences in the strategies of these organizations and now we link these differences to the differences in their structure, control systems and processes.*

Relationship between Strategy and Internal Systems

The primacy for commercial objectives in PEA has lead to an elaborate top down cum bottom up planning and budgeting process, where the former ensures funds availability and the latter assures employee commitment. In MSEB, there is partial focus on commercial objectives; thus there is a centralized expenditure control but there is no participation from bottom in the planning process. In UPSEB, the planning and budgeting exist only on paper, but seldom enforced, due to lack of commerciality. Full commerciality has lead to profit center concept enforced in PEA, though incentives are weak, due to public ownership. Medium commerciality has lead to a responsibility center established in MSEB, where there are revenue collection

targets but no benchmarks for costs. In UPSEB, due to low commerciality, there are no responsibility centers; there are only revenue collection targets.

The strategy of customer differentiation has resulted in different structure and control systems for urban and rural areas in both PEA and MSEB. The differing levels of emphasis on commercialization in the three utilities has also lead to differing levels of functional specialization and demanding different levels of operational responsibility.

The strategy of PEA to use technology has made processes efficient due to automation of processes. The use of IT and interconnectivity had also allowed PEA to reduce layers in hierarchies, which has not been possible in both the SEBs. The use of IT in operations also has an impact on management information system (MIS). The MIS is more effective in PEA compared to both the SEBs because of lack of use of IT in SEBs.

The strategy of customer orientation has resulted in effectiveness of revenue collection and maintenance processes in PEA. The less positive impact of this on processes in MSEB is because MSEB has not set standards for services and only has systems for interaction and feedback from consumers. The absence of customer orientation in UPSEB has also affected effectiveness of processes because the processes in UPSEB, compared to PEA and MSEB are less effective as discussed earlier.

Section II

Contrary to popular perception, public ownership is not a homogenous concept. SOEs face different institutional environments though coming under the same umbrella of 'public ownership'. Organization's strategic behaviour may be different within the same industry and

ownership (Sharma & Vredenburg, 1998) due to difference in societal expectations, coercive pressures and regulatory policies (DiMaggio & Powell, 1983). Organizational and managerial factors also influence the strategic behaviour of the organizations (Sharma, 2000; Zif, 1983). Based on the institutional environment, under which public electric utilities operate in the developing countries and the managerial factors, we propose to develop a conceptual framework to understand the difference in strategic behaviour of the public utilities and consequently, the difference in the performance.

State Owned Enterprises have multiple objectives: commercial, political, social and cultural (Monsen & Walter, 1983). The utilities have to achieve the ROI (return on investment) and at the same time, they have to make accessible the services to consumers, even in economically unviable remote areas at non-discriminatory prices. In India, utilities have traditionally provided subsidized electricity to agriculture. While Government forces these conflicting demands on the SOEs, their achievement is a result of the balance of power between the Government as an owner and the top management who is the agent. The top management's strategic orientation could be either commercial, social or a combination of both. The difference in top management's strategic orientation will result in different internal systems (structure, control systems and processes).

Conceptual Framework

To understand the difference in the strategic orientation of the top management, we need to understand the power and pressures, exerted by different groups and how these affect the strategic orientation. The list of potential stakeholders, influencing the public sector can be very extensive (Pollitt, 1986), however, DiMaggio and Powell (1983) have recognized two primary

influential institutional actors in the context of public sector, namely, the State and the various professional groups, within an organization. In the case of public sector, State is not only the legal owner of the organization, but also the agent of the public. This gives the State a dominant position by virtue of constellation of interests (Weber, 1978) and a legal power. Consumers could be another pressure group, but Paul (1992) has argued that in monopoly situations, the cost of exit for consumers is high enough to deter any pressure.

The domination, by virtue of constellation of interests, suggests the political aspect of power enjoyed by the State. Organizations are coalitions with different interests and preferences (Cyert & March, 1963). These coalitions evaluate the organization and thus, provide legitimacy to the organization, which is necessary for the survival of an organization. Through the method of evaluation, these coalitions define the activities of an organization and influence organizational orientation. Mintzberg (1983) has defined these coalitions as influencers, who seek to control the decisions and actions of the organization. In the case of public utilities, the State is the dominant interest group. Hence, strategic behaviour of public utilities would be influenced by the State because an organization is effective only to the extent that its most powerful stakeholder is satisfied (Connonlly et al., 1980).

The power domination of the state also results from the resource dependency of the utility on the State. The organizations are not only influenced by the coalitions, but also by the resource providers, because the key to an organization's survival is its ability to acquire and maintain resources (Pfeffer & Salancik, 1978). The resource dependence focuses on the exchange of resources between utility and the resource provider and the power relations, this exchange entails because due to resource dependency, external organizations may demand certain actions in

return. In the case of public utilities, capital is the most critical resource, and for public utilities, the Government is the major resource provider. Other than the State, utilities gets capital from other sources as well, like Domestic Financial Institutions (DFIs) and International Financial Institutions (IFIs). They could also influence the managerial strategic behaviour, depending on their interests.

The State, being the dominant coalition and the resource provider, gets the political power to influence the managerial strategic behaviour through formal or informal controls. As the State is nothing, but the government in power, abetted by the bureaucracy/civil services in most of the countries, the political power of the State becomes the political power of the government or the ruling political party. Because of this political power, the Government uses public utilities to further its political objectives. In a democracy, the objectives of the government as a political class is to maximize the probability of winning elections (Monsen & Walters, 1979). The party in power, acting as the Government, would influence the utilities to achieve its objectives of winning an election, through patronage to its constituents. Thus, the objectives of the Government are mainly social objectives, in the form of a lower output price to certain categories and an obligatory universal service.

Because of the public ownership, the problem of principal-agent relationship is complicated. The politicians, who are involved in monitoring of SOEs act as agents for the public. Thus, in SOEs, we have two types of principal-agent relationships: one between the public and the government as an agent of the public and another, between the government, as the owner and the managers of the organization, as the agent. It is assumed that the politicians would seek to achieve economic efficiency. If the first nexus is weak, a politician, the agent disconfigures the social interest to the

political interest. The political interests would be mostly self-interests and favours to a small favored group. On the other hand, if the control mechanism, employed by the Government, to monitor the SOE is weak, the agent manager acts at a variance to what the government demands.

Among the various professional groups in an organization, the managers are the most influential stakeholders within it. Their beliefs and values will influence the strategic orientation of the top management. Zif(1981) has suggested that the top management orientation is dependent on the individuals' personalities and interests. This is also consistent with the arguments of Aharoni (1980&81), who has argued that the managers' orientation would be influenced by their desire to achieve discretionary autonomy and independence from the political control. We take the beliefs and the value system of managers as a moderating variable, which would moderate the effect of institutional pressures on strategic orientation.

Based on the above arguments, a number of broad factors can be considered for explaining the variations in the strategic orientation of top management of the public utilities and consequently, the variations in their performance. These include:

- Resource dependency of the utility
- Political interests (of public representatives)
- Control mechanisms used by the Government
- Managers' beliefs and value system (moderating variable)

Based on these factors, figure 1.1 provides a conceptual framework for understanding the variation in the strategic orientation of top management of public utilities and consequently, the variation in their performance.

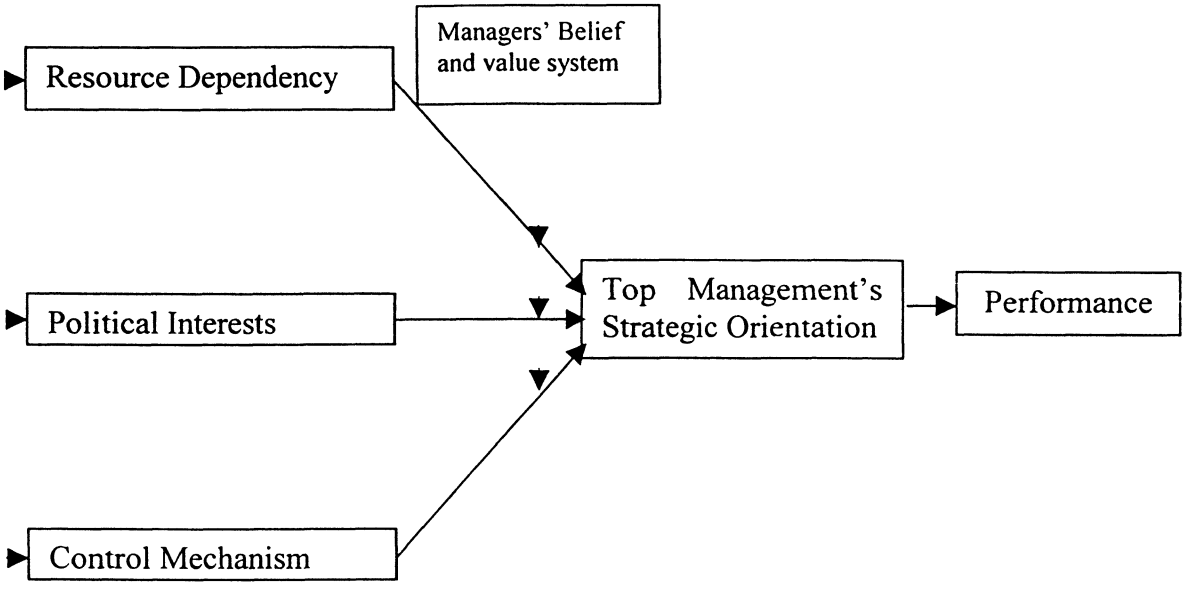

Figure 1: Framework for Strategic Orientation of Public Utilities

Propositions

Resource Dependency

The managers of the public utilities depend on the State and other external actors for certain essential resources, namely, financial resources and markets (e.g., sale to public sector). In the case of utilities, the financial dependence is the most critical, because capital is the most critical resource. The financial dependence of the public utilities on the State arises due to the budgetary allocation from the State, guarantee of the State on the loans from the credit institutions and the subsidies for supplying cheaper power to certain categories of consumers. The markets in the

case of utilities are not that important because they operate in a limited geographical area and all the consumers have to buy from that utility only. This results in financial dependency as the major resource dependency of the utility on external actors. The resource dependency of the utility on the State enables the Government to control the behaviour of the organization. In this case, informal controls are preferred (Monsen & Walters, 1983) and the utility would be used more as social a instrument to achieve objectives of ruling party, which would be to win the election next time. The public utilities are also dependent on DFIs for finances. In the developing countries, DFIs provide finances to the public utilities either ,as a part of budget allocation or separately. These DFIs are also somewhat influenced by the State and hence, will have both commercial and social objectives. For instance, Rural Electrification Corporation (REC) in India provides loans mostly for the social infrastructure development. So, these institutions will demand satisfaction of both commercial and social objectives. Other than these sources of finance, public utilities also get loans from the IFIs, like the World Bank, Asian Development Bank and Multilateral Credit Agencies. IFIs are interested only in the public utilities following the commercial objectives, as we have seen in the developing countries, where the World Bank is putting pressures on the public utilities to become commercial.

The relative extent of financial dependency would be determined by the extent of funds provided by each agency to the total funds taken by the utility. The subsidies provided by the state government should also be added to the loans provided by the State to determine the extent of financial dependency of the public utility on the State. Based on the above, the following propositions are posited:

H1a: Higher the organization's financial dependency on the state, higher would be the social orientation of the top management

H1b: More the organization's financial dependency on the DFIs, the top management orientation would bea mix of commercial and social

H1c: Higher the organization's financial dependency on the IFIs, higher would be the commercial orientation of the top management

Political Interests

The politicians often exercise informal controls to satisfy their own interests or to favour certain special constituencies. They can interfere directly without being held accountable for their interventions (Monsen & Walters, 1983). These interventions can distort the behaviour of the management because nobody is accountable for it. The utilities cite these interventions to hide their inactions. For instance, poor performance on collection in public electric utilities is mostly attributed to interference in disconnection of certain consumers by the Government or the political representatives. Similarly, non-performance by managers or difficulty in taking actions against non-performing mangers is attributed to the political interference in operational matters of the utilities.

The capabilities of the political resprentatives to intervene in the working of the public utilities would be decided by their strength in the political system, timing of next election and the ideology. However, there are mixed evidence of the effect of ideology on the political actions and Sarangi (1990), in a cross-national empirical analysis, has found that ideology does not affect the change of policy. The more fragmented is the political system, the interventions would be more and individuals would get a chance to maximize their interests because of the low power

differential. This will also happen because the ruling party would not be in a position to restrict any politician due to its precarious legislative strength. For a political unitary, i.e., if the strength of ruling party is high, then individuals have less power to intervene, and the government would be more objective and allow the public utility to function commercially or socially as the Government would be having higher power. The commercial or social policy of the Government will most likely to be decided by the timing of next election. In the beginning of the governing term, the policy would be more likely to be commercial, but near the end of the term, it would be social. This is because the ruling party would like to increase the chances of winning coming elections and hence, would try to be more populist. However, anywhere between these two extremes, there will be differential pressures on the ruling party to maintain its ruling position and hence, it will have its interests varying from commercial to political. When the political system is of a balanced nature, the ruling party would like to increase its strength in the next term and hence, the interests would be socially oriented. The strength of the ruling party could be determined by the strength of the major ruling political party in the total house. If this strength is low, then the political system is fragmented and if this is high, then the political system is unitary and exactly between these two stages, it would be balanced. Based on the above arguments, following hypotheses can be advanced:

H2a: The more fragmented the political system, the more exploitation and lower would be the emphasis of the top management on social and commercial orientation

H2b: The more unitary the political system, higher would be the commercial orientation of the top management just after the elections and higher would be the social orientation of the top management just before the elections (in search of ' populist' measures)

H2c: The more balanced the political system, higher would be the social orientation of the top management

Control Mechanisms

The state is the legal owner of the public utilities and is responsible for the control of the organization. The state exercises this control through number of systems and authorities. For this, there are number of monitoring agencies.

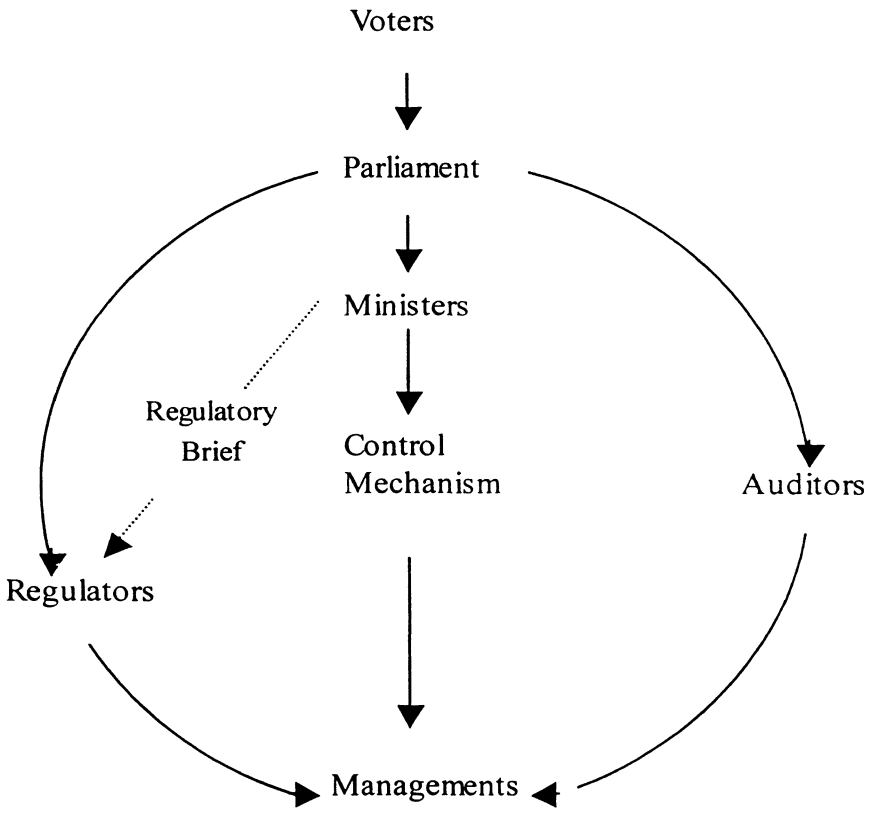

Figure 1.3: A possible public sector Monitoring Hierarchy

Figure 1.3 provides the possible public sector monitoring hierarchy Vickers & Yarrow, 1988). The control on the public sectors is exercised by the Parliament through number of committees,

like Public Account Committee. Audit and Vigilance authorities of the State also monitor the working of the public sectors. However, these agencies are not able to influence the strategic orientation of the top management, because they just monitor what is happening and whether that direction is correct or not, does not concern them. The state controls the public utilities through the concerned Ministry also, which decides the objectives and monitors the performance of the public utilities. The nature of control mechanisms used by the Ministry would influence the strategic behaviour of the top management.

The electric utilities are monopolies and hence, they require regulatory control. The regulatory control can be exercised by the State or by another authority (in India, regulatory commissions have been appointed in many States to regulate state electric utilities). The regulatory control would influence the strategic behaviour of the top management because it sets the price.

The control process includes the setting of objectives and the evaluations of performance, which depends on the information required to evaluate the performance, the types of control used to evaluate the performance and the reward system to motivate the managers.

The clarity of the objectives set by the Ministry would provide less scope for the managers to manipulate the objectives of the organization. The ambiguity of goals pass on the leverage of greater discretion to an SOE manager. This problem may be accentuated, if there is a large information gap between the agent and the principal. In the electric utilities case, the managers can have high firm specific knowledge because of the technical nature of the industry. The managers can also adopt practices, which result in an inaccuracy of the information. In India, the State asks the public utilities to provide cheaper power to certain types of consumers, which makes the metering economically unviable. But this system results in an inaccurate information

of losses in the system and managers have incentive to book these losses (theft in collusion with agents) to un-metered categories of consumers to project a better performance.

The types of control used by the State to evaluate the performance would also influence the strategic behaviour of the top management. The types of control could be either behavioural control or outcome control. Govindrajan and Fisher (1990), based on Ouchi's (1979) model of the ties between task characteristics and control strategy, and a key variable of agency theory, behaviour's observability, devolved a model to predict the effectiveness of different controls. They predicted that output control would be more effective with high outcome observability, low behaviour obervability and imperfect task programmability. So effectiveness of types of control employed by the State would determine the behviour of the top management. In the case of public electric utilities, both the task programmability and behaviour observability are low, but the outcomes are measurable. Hence, output control would be more effective.

The incentives to the managers in public sectors are often limited and hence, would not be a determining factor for the strategic behaviour of the top management. However, the type of budget constraints, hard or soft, can influence the behaviour of the organizations (Majumdar, 1994). In the pubic utility case, this is more relevant because even if the utilities are not performing, the State can keep on providing funds to them in the form of subsidies or grants, thereby reducing their efforts to improve commercial performance. In India, governments provide balancing subsidies, i.e., the subsidy is a residual amount to reach a financial target. This post-facto balancing subsidy results in utilities not focusing on commercial objectives and there is a moral hazard that Government will bail them out. In views of these arguments, following hypotheses can be proposed:

H3a: The higher the specificity of commercial objectives, higher would be commercial orientation of the top management and the higher the specificity of social objectives, higher would be social orientation of the top management

H3b: More the output control for commercial objectives, hgiher would be commercial orientation of the top management and more the output control for social objectives, higher would be social orientation of the top management

H3c: More the information asymmetry between the State and the public utility, lower would be the social and commercial orientation of the top management

H3d: The harder the budget constraints, higher would be the commercial orientation of the top management

In the framework, so far, we have focused on simple bivariate relationships. However, some of the independent variables could also be affected by other independent variables. The resource dependency on the State can also have impact on the control mechanism used by the State. Effective controls can also reduce the political interventions. These relationships would also be affected by the moderating variable taken in the framework. For instance, if the beliefs and values of the managers are only to maximize their interests, then even with resource dependency on the IFIs, the public utilities would not be efficient and they will only change the structures and the systems from outside and decoupled them from actual activities. There are other factors, we have not considered. For example, if the State is dependent on the IFIs for its own finances, then despite the political interest and resource dependency of the public utility on the State, the State would force the top management of the utility to have a commercial orientation.

Section III

In the first section, we have seen that there are differences in the strategies of the three organizations. PEA was following commercialization strategy; while for MSEB, it was a mix of commercial and social strategies; and in the case of UPSEB, the focus was missing. We have also seen that PEA was the best performer on commercial parameters, MSEB was average and UPSEB was poor. On social parameters, PEA and MSEB were both doing well, but even the UPSEB was doing relatively well. From the previous section, we have seen that if the top management's strategic orientation is high on both social and commercial dimensions, then the organization would be excellent; if it is high only on commercial, then the organization would be efficient; but if it is low on both, then the organization would be a dead wood. Now, we try to find out the difference in the top management' strategic orientation in response to the State pressures and the expectations in these organizations. based on the conceptual framework as proposed in the second section. For this, we analyze the differences in the role of the State for all the three organizations and how it influences the strategic orientation of the top management, based on our hypotheses, proposed in the previous section.

Resource Dependency

PEA is dependent on market and institutions for capital and there is not a single source for these resources. The government has provided equity capital for operations of PEA, along with loans for rural electrification and system improvement works. PEA is not getting any subsidy from the Government. MSEB is getting capital from both the state government and market sources. However, the World Bank provided a loan to MSEB in 1992 and some of current practices in MSEB were started at that time because the World Bank raised certain demands, to be fulfilled

by the state government and the MSEB. These demands have resulted in state government allowing MSEB to earn a return of 4.5% by tariff or subsidy. Due to these demands, MSEB started focusing on improving revenue collection as the World Bank wanted MSEB to have only 75 days' receivables. MSEB is also dependent on the state government for subsidies during those years, when it is not able to earn the required return of 4.5%. UPSEB is getting capital resources mostly from the state government as part of annual plan funds. Some commercial lenders are also part of these plan funds. UPSEB finds it difficult to raise capital from the market due to its weak financial position. Recently, the World Bank has agreed to provide capital to UPSEB and has asked for the unbundling of UPSEB. UPSEB is trying to comply with these demands and unbundling have been done, while certain other things are in the process. The categories of resource providers and their average share in the resources provided to these utilities during the last five years are given in the Table 2.

Table 2: Resource Dependency of PEA, MSEB and UPSEB

Source	PEA	MSEB	UPSEB
% State	17.76	57.04	80.26
Subsidy (% Revenue)	0.00	3.42	26.82
% DFI	0.00	42.96	19.74
% IFI	82.23	0.00	0.00

Based on our hypotheses, we can say that strategic orientation of the top management would be high on commercial dimension in PEA, because its financial dependency is high on IFIs. The top management in MSEB would be high on social and medium on commercial dimension because the extent of financial dependency of MSEB on the State and DFIs is almost the same. The dependency on the State will result in higher social pressures, while due to involvement of DFIs, it will have medium commercial pressures. In UPSEB, the strategic orientation of the top

management would be social because the financial dependency of UPSEB is very high on the State.

Political Interests

The political system during last many years in the state of Uttar Pradesh has been fragmented. The ruling party is not able to get majority since 1992 and it has been a coalition government of more than two parties. In the last few years, there have been even 4 to 5 parties. This results in social interests being subverted to political interests and hence, lot of political interference is felt in the working of UPSEB. Thus, the performance of UPSEB on social parameters is also not good, despite the State being a major resource provider. In the state of Maharastra, in the last few years, the Government has been a coalition of two parties. This would more likely result in social objectives being forced by the Government or the exploitation. Hence, the strategic orientation of the top management in MSEB would be less on commercial but high on social. The Government in Thailand has been stable and hence it will have a mix of social and commercial objectives. This would result in the strategic orientation of the top management in PEA being medium on both social and commercial dimensions.

Control Mechanisms

The commercial objectives are not clear for both the SEBs, but social objectives are clear and are monitored based on the outcomes. The Electricity Supply Act 1948 allows SEBs to decide the tariff to earn a return of minimum 3%, but this objective is not set by the Ministries monitoring SEBs. The specificity of social objectives and output-based control would make the strategic orientation of the top management social in both the SEBs. For PEA, the Government has made

both objectives clear and these objectives are part of the corporate plan of PEA. The Government uses output-based control to monitor performance against these objectives. The specificity of commercial and social objectives and output based control for PEA means that the top management's strategic orientation would be high on both social and commercial dimensions.

The soft budget constraint in the form of providing post facto subsidy, either on agriculture consumption (UPSEB) or ROR (MSEB), does not force SEBs to be commercial because they know they will get the subsidy, even if they do not perform. The Government of Thailand is not providing any subsidy to PEA and hence, it is forced to perform well to survive. These factors would result in social orientation of the top management in SEBs and commercial orientation of the top management in PEA.

Due to un-metered supply for many consumers, there is a large information gap between the monitoring agencies and SEBs in India. This gap is more in UPSEB as compared to MSEB because more categories of consumers are un-metered in UPSEB. This provides more discretion to managers to maximize their self-interests in UPSEB, resulting in orientation of the top management low on commercial dimension as compared to MSEB. In PEA, all the consumption is metered and hence, the information gap is less. Due to this, the top management orientation would be high on commercial in PEA.

Conclusions

In this study, we have seen that all the SOEs are not equally bad. The strategic behaviour of the SOEs is dependent on the Government, in terms of resource dependency, control and incenticve structure. The relationship between the government and the top management decides the

strategic orientation of the top management. Depending upon this strategic orientation, internal system of the organizations will emerge. In the case of a public uitility, the top management's strategic orientation could be commercial or social, which will have an impact on the performance of the utility. An organization could be efficient, responsive, excellent or deadwood, depending upon the combination of the commercial and social orientation of the top management.

References

1. Aharoni, Y. 1980. The state-owned enterprise as a competitor in international markets. **Journal of World Business,** 15:1
2. Aharoni, Y., & Vernon, R. 1981. **State Owned Enterprise in the Western Economies,** London: Croom Helm.
3. Conolly, T.E., Conlon, E.J., & Deutsch, S.J. 1980. Organization effectiveness: A multiple constituency framework. **Academy of Management Review, 5:211-217.**
4. Cyert, R.M., & March, J.G.1992/63. **A Behaviourial Theory of Firm,** Englewood Cliffs, NJ: Prentice Hall.
5. DiMaggio, P.J., & Powell, W.1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. **American Sociological Review,** 48:147-160.
6. Govindrajan, V., & Fisher, J. 1990. Strategy, control ystems and resource sharing effect on business-unit performance. **Academy of Management Journal,** 33:259-285.
7. Mintzberg, H. 1983. **Power in and Around Organizations,** NJ: Prentice Hall.
8. Monsen, R.J., & Walters, K.D. 1979. A theory of the state-owned firm in a democracy. **The State-Owned Enterprises Conference,** Harvard Business School: March 26-28, 1979.

9. Monsen, R.J., & Walters, K.D. 1983. Who should control nationalized companies. **California Management Review,** 25:27-36

10. Ouchi, W. 1979. A conceptual framework for the design of organizational control mechanisms. **Management Science,** 25:833-848

11. Pfeffer, J., & Salancik, G. P. 1978. **The External control of Organizations: A Resource Dependence Approach,** NY: Harper and Row Publishers.

12. Pollitt, C. 1986. Beyond the managerial model: The case for broadening performance assessment in government and public services. **Financial Accountability and Management,** 2:155-170.

13. Sarangi, P. 1990. **Political Exchange and Public Policy: A Cross Nation Analysis,** New Delhi: Concept Publishing Company.

14. Sharma, S. 2000. Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. **Academy of Management Journal,** 681-697.

15. Sharma, S., & Vredenburg, H. 1998. Proactive corporate environmental strategy and the development of competitive valuable organizational capabilities. **Strategic Management Journal,** 19: 729-753.

16. Vickers, J. & Yarrow, G. 1990.**Privatization: An Empirical Analysis,** London: MIT Press.

17. Weber, M. 1978. **Economy and Society,** University of California Press

18. Zif, J. 1981. Managerial Strategic behaviour in state-owned enterprises: Business and political orientation. **Management Science,** 27: 1326-1339.

19. Zif, J. 1983. Explanatory concepts of managerial strategic behaviour in state-owned enterprises: A multinational study. **Journal of International Business Studies,** Spring/Summer: 35-46.