# Public Control and Public Enterprise Performance in Sub-Saharan Africa: The Case of Tanzania and Zambia

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***Résumé***: *Cette étude examine l'impact de la politique des Etats en matière de nationalisation, d'africanisation et de substitution à l'importation sur la performance financière et l'utilisation des capacités de quelques entreprises publiques de la Tanzanie et de la Zambie. Les résultats obtenus prouvent que contrairement à la plupart des études qui présentent la performance des entreprises publiques en des termes monolithiques, l'évolution de la performance est évidente quand on considère ces entreprises au plan macro ou quand on les analyse à travers le type de gestion et la nature des rapports Etat/entreprise. Cette étude montre que l'évolution de la performance des entreprises (i.e. en termes de profit financier et d'utilisation de la capacité) est liée aux politiques spécifiques de gestion économique suivies par la Tanzanie et la Zambie.*

## Introduction

This paper discusses the impact of state policies of nationalization, Africanization and import substitution on public enterprise[1] performance in Tanzania and Zambia.[2] First, it is necessary to provide a general overview

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1 Public enterprises (or parastatal organization as they are commonly called throughout Africa) have been major instruments of economic growth and development in Africa for almost three decades now. The main characteristic of a public enterprise (or parastatal organization) is that the government has control over the decisions and operations of the entity. In almost all cases, governments also have majority ownership (although government minority ownership does not necessarily change the status of the enterprise vis-à-vis the state). The second characteristic of public enterprises is that they are engaged in business activities which means that their output is sold in the market, and the revenues obtained are expected to cover a substantial portion of the costs incurred. But in practice most of them are heavily subsidized by the state since they often tend to incur financial losses.

2 Tanzania and Zambia are among a few African countries that undertook important economic reforms in the late 1960s and early 1970. In Tanzania the economic measures were contained in the 1967 Arusha Declaration. Zambia's economic reforms were largely in response to Rhodesia's. Unilateral Declaration of Independence (UDI) in 1965 - but three years later, those reforms were augmented by the 1968 Mulungushi reforms ad subsequent economic measures adopted in 1969 and 1970. Over the years, both states have attempted to rapidly implement policies of economic and managerial control in the hope of expediting the development process.

of the current privatization debate by briefly considering the link between ownership, management and enterprise performance. Contrary to recent studies reported in several developing countries linking enterprise performance to quality of management, proponents of the privatization thesis still argue that the transfer of ownership from the public sector (state) to the private sector would improve the performance of public enterprises in Africa.

Most African countries are currently under intense pressure from Western controlled financial institutions such as the World Bank and the International Monetary Fund to liberalize their economies and privatize public sector enterprises.

The World Bank and other Western financial institutions have seized upon the issue of widespread poor public enterprise performance in Africa to recommend the 'privatization' of public enterprises as a policy option. Privatization (sometimes referred to as 'denationalization' or 'divestiture') implies the transfer of ownership of an enterprise from the public or state sector to the private sector. Proponents of the privatization thesis argue that this change in ownership would subject the enterprises to market forces and pave the way for greater efficiency and financial accountability. However, they overlook evidence from several Third World countries which strongly indicates that enterprise performance depends on the quality of management rather than on the type of ownership (Cook, Kirkpatrick 1988:19). For instance, evidence on the performance of public enterprises from such varied countries as South Korea, Uganda (before 1971), Iraq or Kenya, show that such enterprises have performed better financially than private firms in the same countries (Haile-Mariam and Mengistu 1988:1573-4). In all these cases public enterprise performance improved due to quality of management and the absence of political interference in operational decision making. The findings reported in this paper on the performance of public enterprises in Tanzania and Zambia concur with the evidence cited above. More importantly, my findings show first that the performance of public enterprises in Tanzania and Zambia are closely linked to the policies of nationalization, Africanization and import substitution that were rigorously pursued in each country. Secondly, the findings indicate that variations observed in public enterprise performance in both countries are clearly evident when the enterprises are considered at the microlevel, or analyzed by the type of management and the nature of state-enterprise relationship.

This paper is organized into five sections. The first section considers major reasons for public enterprise growth in Tanzania and Zambia. It also provides a brief description of the state policies analyzed. The second section examines the conceptual and theoretical issues and problems that arise when analyzing enterprise performance in Sub-Saharan Africa in general, and Tanzania and Zambia in particular. The third section compares the financial performance of locally managed public enterprises with those managed by foreign expatriates in both Tanzanian and Zambia. In the fourth section we analyze the capacity utilization of wholly state-owned enterprises and those that were joint ventures in both states. The final section provides some tentative conclusions as well as the theoretical implications of state control of the economy for public enterprise performance in Africa.

**Public Enterprise Growth in Tanzania and Zambia**

Over the past two decades, the public sector in sub-Saharan Africa has grown very rapidly, largely for ideological or nationalistic reasons or both (Ndulu 1986:85). While the public enterprise sector in Tanzania expanded primarily for ideological reasons, it did so in Zambia for nationalistic ones. But irrespective of the motivation for expansion, both Tanzania and Zambia have taken over wholly or partially economic activities (i.e. both companies and businesses) formerly owned and operated by foreigners (Tuncer 1984:0-12).

Although the growth and expansion of the public sector in post independent Africa has been in response to ideological or nationalistic desires to control the economy in order to achieve national development goals more rapidly, the process of taking over foreign owned and managed companies has varied from one state to another. In Tanzania, where both foreign capital and a local bourgeoisie were weak, the political leadership was able to fully nationalize foreign companies. In contrast, Zambia with very well entrenched foreign capital interests (particularly in the copper mining sector) and a small but influential indigenous capitalist class, opted for partial nationalization (or participation with state majority shares).

In general, nationalization made state control of the economy in both Tanzania and Zambia possible. It was also instrumental in the rapid implementation of the policies of Africanization and import substitution which followed soon after in both states. Nationalization is viewed by Tanzanians and Zambians as the method used by the Tanzanian and Zambian states to take full or partial control of foreign-owned companies.

Africanization (or localization), entailed replacing foreign expatriates working in middle and senior level positions in government or public enterprises with nationals of either state. Finally, both Tanzania and Zambia pursued industrialization through a strategy of import substitution. Import substitution is the practice of replacing imported products with similar products which are locally manufactured. It is often expected to save foreign exchange, increase industrial production, and transform national economies from agrarian to industrial economies.

### Conceptual and Analytical Problems of Public Enterprises Performance in Sub-Saharan Africa

There is great concern over the performance of public enterprises throughout Sub-Saharan Africa because of their size and the important role they are expected to play in achieving national development objectives. But since public enterprises in both Tanzania and Zambia, like those elsewhere in Africa, perform multiple goals that often tend to be vague and contradictory, it is rather cumbersome to determine or measure their performance.

Therefore, I have selected to use financial profitability and capacity utilization as useful indicators of public enterprise performance in both Tanzania and Zambia since both criteria are central to the goals of the commercially oriented enterprises in the two countries. Profitability represents the financial return on public enterprise investments as determined by the company's commercial goals. Capacity utilization, on the other hand, relates the actual plant output and the full capacity utilization in a given plant. Because full capacity utilization is rarely attainable in virtually all developing countries, most of the debates on and analyses of capacity utilization in both Tanzania and Zambia appear to revolve around the problem of capacity underutilization. Underutilization of capacity means less output is generated from a unit of capital equipment.

Since the nature of government policy and practice in Tanzania and Zambia appears to have important consequences for public enterprise performance, it is imperative that the analysis of both profitability and capacity utilization be done within the larger context of each country's political economy. Public enterprise performance in Tanzania and Zambia is generally determined by two categories of objectives which may not be mutually compatible. The first category of objectives which are developmental and national in character relates to each state's desire to expand its control over the economy in order to implement particular national policies. As a result, public enterprises such as the National Development Corporation in Tanzania and the Industrial Development Corporation in Zambia were set up to implement stated policies on behalf of the two states. The second category of objectives is perceived as internal to the enterprises. Profitability and capacity utilization are among the most important ones. But since public enterprises in Tanzania and Zambia are largely guided by a combination of national objectives as well as their own internal goals, we expect their performance to be affected by both categories of objectives.

Previous studies of public enterprises in Africa have focused upon the abysmal financial performance of these firms (Nellis 1986:17-44; Tordoff 1984:139-144, 286; Mkulo 1985:189, 1990; Mukandala 1983:58-70), but this paper departs significantly from this approach by seeking to link specific government policies in Tanzania and Zambia to particular public enterprise outcomes in both states. Below I focus upon the policies of nationalization (i.e. full or partial), Africanization and import substitution and their impact on the performance of selected public enterprises in Tanzania and Zambia.

**The Financial Performance of Public Enterprises in Tanzania and Zambia**

There is general consensus that public enterprises in Sub-Saharan Africa, irrespective of the ideological commitment of the state, have performed poorly financially (Nellis 1986:vii-ix, 17-44; Tuncer 1984:18-32; Tordoff 1984:139-144, 286). At the same time, there is a growing minority perspective which acknowledges the prevalence of such widespread unsatisfactory performance, but rejects the description of all public enterprise performance in Africa in monolithic or blanket terms (Grosh 1988:47-53).[3] This perspective maintains that when the performance of public enterprises in Sub-Saharan Africa is considered at the micro-level (e.g. sectorial, sub-sectorial, or holding company levels of by category of ownership (e.g. wholly state owned or joint ventures.), variations in performance emerge. My analysis of selected public enterprises in Tanzania and Zambia examines their performance by both type of management and category of ownership at the holding company level.

I chose the National Development Corporation (NDC) in Tanzania and the Industrial Development Corporation (INDECO) in Zambia for analysis because each one of them is the largest and most representative of commercially oriented industrial public enterprises to be found in either state (Johns 1980:104-129; Turok 1979).[4] Although the poor financial performance of public enterprises in Africa is widespread, variations in financial profitability are certainly evident at the holding company level. Tables 1 and 2 demonstrate clearly that both NDC and INDECO companies managed by foreign expatriates performed much better in terms of financial profitability than those locally managed for selected years. The central question then is, what sets the financial performance of locally managed NDC and INDECO

3 Concludes that there is a wide range of performance among Kenyan public enterprises, from excellent to abysmal and draws upon the Kenyan evidence to reject blanket assertions of poor public enterprise performance in Africa in general.

4 Both authors distinguish three types of state-owned corporations on the basis of their mode of creation and designated functions. The three types the authors identify are: 1) the 'commercial' type or the 'commercial' public enterprises, engaged in industrial or mining activities and incorporated like private companies under the company's ordinance, to pursue primarily commercial goals: the National Development Corporation in Tanzania and the industrial Development Corporation (INDECO) are good examples. 2) The 'semi-commercial' type or statutory boards, such as the railways, created by legislative statute, to provide a public service on a business-like, basis, and 3) the 'non-commercial' type, also created by legislative statute, to carry out various public functions (e.g. provide social services), without necessarily the expectation of regular economic viability.

group subsidiary companies apart from those managed by foreign expatriates or under management agreements?

The performance of local management in post-colonial Tanzania and Zambia have been affected by a combination of several factors, but the most salient ones include: the over-extension of their roles; politicization of appointments, decisions and decision making structures; and the quality of management as well as their overall orientation or managerial philosophy. In contrast, foreign expatriates or management agents are largely insulated from the bulk of influences that afflict local management.

As a consequence of the proliferation of public enterprises in Africa in the last two decades, the need for all types of managers has increased dramatically. But in the particular case of Tanzania and Zambia, the dramatic expansion and diversification of activities of the public enterprises (resulting largely from nationalization) and the desire for rapid Africanization of management, have over-stretched local managerial capabilities. Since local nationals required in each country to serve as board members or fill up managerial positions in the expanded public enterprises were insufficient, a small group of politicians and top government functionaries had to share a large number of parastatal leadership positions in addition to their substantive post (Shivji 1976:89).

Performing multiple roles contributes to work overload which, in turn, leads to the deterioration in the productive capabilities of local board members or top executives towards the activities of individual public enterprises. This is primarily because the officials have no time to attend to important matters arising in individual enterprises. In addition to heavy workloads, politically appointed managers or directors are often not suitable for the task assigned to them because they lack the necessary business experience required for risk-taking behavior or good business management (El-Mamaki 1979:214; Grosh 1988:377-8).

The problem of local management extends beyond the scarcity of qualified managers to include the process of selecting them. The selection of top managers in Tanzania and Zambia, like elsewhere in Africa, is not always based on merit but rather on political considerations (Tuncer 1984:47-50).[5]

5 The bulk of Tanzanian and Zambian nationals who initially took up senior management positions were administrative bureaucrats (i.e. former civil servants) who had served in the colonial state. But following nationalization and the call for the rapid Africanization of management in the nationalized companies, top party and government officials in both states were appointed by the Presidents or the relevant cabinet ministers to occupy executive positions or serve as board members of various public enterprises.

**Table 1: Financial (i.e. Profit/Loss*) Performance of NDC Subsidiary Companies Managed by Tanzanian Nationals and Foreigners for Selected Years**

| Year | Total NDC Subsidiaries | Foreign Managed NDC Subsidiaries: Sub-Total | Profit-Making | Loss Making | Profit-Making as % | NDC Subsidiaries Managed by Tanzanian Nationals: Sub-Total | Profit-Making | Loss Making | Profit-Making as % | Total Making Profit | Total Making Losses | All Profit Making as % of Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1969 | 33 | 12 | 7 | 5 | 58.3 | 21 | 5 | 16 | 23.8 | 12 | 21 | 36.4 |
| 1970 | 35 | 12 | 6 | 6 | 50.0 | 23 | 5 | 18 | 22.0 | 11 | 24 | 31.4 |
| 1971 | 33 | 11 | 5 | 6 | 45.4 | 22 | 5 | 17 | 23.0 | 10 | 23 | 30.3 |
| 1980 | 18 | 6 | 6 | 0 | 1000.0 | 12 | 5 | 7 | 42.0 | 11 | 7 | 61.1 |
| 1984 | 18 | 7 | 6 | 1 | 85.7 | 11 | 4 | 7 | 36.4 | 10 | 8 | 55.6 |
| 1985 | 18 | 7 | 5 | 2 | 71.4 | 11 | 5 | 6 | 45.5 | 10 | 8 | 55.6 |

**Sources**: Data computed from various NDC Annual Reports and *History of the NDC*, January 1985, p. 21.

* **Notes**: I have not attempted to separate pre-tax and post-tax profits/losses since the records routinely refer to both simultaneously.

**Table 2: Financial Performance of INDECO Subsidiary Companies Managed by Zambian Nationals and Foreign Expatriates, 1980-82**

| | | Foreign Managed INDECO Subsidiary Companies | | | | INDECO Subsidiary Companies Managed by Zambians | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Total INDECO Subsidiaries | Sub-Total | Profit-Making | Loss Making | Profit-Making as % | Sub-Total | Profit-Making | Loss Making | Profit-Making as % | Total Making Profit | Total Making Losses | All Profit Making as % |
| 1980-81 | 34 | 10 | 7 | 3 | 70.0 | 24 | 12 | 12 | 50.0 | 19 | 15 | 56.0 |
| 1981-82 | 34 | 10 | 9 | 1 | 90.0 | 24 | 12 | 12 | 50.0 | 21 | 13 | 62.0 |

**Source**: Calculation derived from various INDECO annual reports.

The process of selecting board members and local management in both Tanzania and Zambia is, therefore, highly politicized. Politicization refers to situations where political (and ideological) considerations carry more weight than either technical or economic factors when appointing personnel or making operational decisions (Hyden 1983:100-1). The major problem with political appointees is that they usually lack an understanding of '...business concepts (and) their view is severely restricted by narrow... ideological interpretations of prevailing views...' (El-Namaki 1979:214-5; Ihimodu 1986:226-7).

It is often assumed that local political appointees are more motivated and committed to the success of state-owned enterprises. But what is rarely acknowledged is the fact that the bulk of local political appointees tend to owe their support or commitment to the president or the minister who appointed them rather than to the enterprise they are meant to serve. As a consequence, most appointees are ultimately concerned with job security rather than with business management or profit-maximization. Bolton (1985) points out, for example, that local public sector managers in Tanzania *'put their job security and interests above the goals and objectives of their enterprises'* (Bolton 1985:78).

Politicization also manifests itself in the type of decisions political appointees make. Since political appointees are often beholding to leading members of the appointing authority, they tend to pursue political objectives at the expense of investment efficiency or any other relevant economic performance criterion (Hyden 1983:101). Boards of trustees in Western enterprises are expected to be accountable to shareholders. And as policy making organs, boards are the appropriate units for the creation of entrepreneurial goals and the evolution of broad policies and strategies for enterprises. But in Tanzania and Zambia the situation is different. Most of the broad objectives of public enterprise boards are *set by the state and spelled out... in several ways, including parliamentary debates, government directive, leaders' speeches and presidential orders establishing the company* (El-Namaki 1979:212-3). As a result the boards of NDC in Tanzania and INDECO in Zambia often end up guiding subsidiary companies in matters related to social equity and political responsiveness to national ideologies rather than engaging in the creation of entrepreneurial goals or the establishment of broad policies and strategies essential for business management.

Management is usually expected to execute the decisions made by the governing board of the enterprise. But in the case of local management in NDC and INDECO, the implementation process has been undermined by the presence of several layers of bureaucratic and political controls. The bureaucratization of public enterprises through the establishment of a maze of control institutions and mechanisms has proven to be the very antithesis of their intended purpose (Mramba 1977:18). First, the sheer increase in the number and type of regulatory controls (i.e. bureaucratic, political as well as technical ones) need the hands of both decision makers and implementers. As a results, decision making and problem-solving are routinely delayed. Second and most importantly, the bureaucratic and political controls set up following nationalizations in both states concentrated largely on the control of public enterprise processes rather than their outcomes or financial performance. This is manifested in the emphasis each one of the control mechanisms put on the regulations of persons or organizations responsible for making operational and investment decisions. Finally, and equally important, parastatal control structures created following the nationalizations, permitted more bureaucratic control of both local management and parastatal operations. For instance, parastatal decisions involving investments, production targets or the use of surpluses were increasingly handled by the political and bureaucratic members of the dominant (ruling) class in each state. As a consequence, political decisions took precedence over business or management decisions. A combination of these factors and other government policies and practices ultimately eroded local managerial autonomy and accountability (Mulokozi et al. 1989:200).

Both the quality of local management and its orientation toward enterprise goals appear to have affected its performance too. The rapid expansion of the public enterprise sector in both Tanzania and Zambia combined with each states' efforts to localize top management led inevitably to the appointment of less qualified and, in most cases, inexperienced Africans to such positions (Jackson, Rosberg 1986:220-1; Tanzania (Republic of) 1983:176; Bolton 1985:87; Rweyemamu, Hyden 1975:235). The appointment of local managers to replace expatriates was often justified in political or nationalistic terms. As a result, expertise was subordinated to political and nationalistic considerations when local managers for enterprises were recruited.[6]

It was argued that because of both nationalization and rapid Africanization, it was inevitable that newly appointed local managers would have little or no managerial experience (Bolton, 1985:87). But the problem of inexperience among local managers was exacerbated by the inadequate traiing they received (*Enterprise* 14, 1977:43-7; *Jenga* 13, 1973:32).

Despite the scarcity, inexperience and inadequate training of local management, both Tanzania and Zambia have pursued ambitious programs to localize management positions in the public enterprise sector. Localization was expected to be achieved through elaborate personnel training

6 This contrasts sharply with the debate that consumed China in the mid-1950s and 1960s over 'redness' and 'expertness' (or ideological zeal versus expertise).

programs undertaken by individual public enterprises and by the strict enforcement of localization of all positions vacated by expatriate management. But in spite of such programs, both states still lack local personnel with the necessary technical and professional skills. This explains why in both states there is continued use of foreign expatriates or management agents more than two decades after Africanization programs were launched.

Following nationalizations, the Tanzania and Zambia states put emphasis on the developmental role of newly reorganized holding corporations such as the National Development Corporation and the Industrial Development Corporation respectively. Similarly, the local management of the newly created or reorganized enterprises shifted the performance criteria of the firms from economic to non-economic ones. As a result, efficiency and profit maximization were subordinated to political and social criteria of performance (Penrose 1972:59; Bolton 1985:76). As suggested earlier, most local public enterprise executives are driven by concern for job security rather than profit maximization. Local managers are also keenly aware of the lack of any direct link between performance and managerial remunerations or career development. Therefore, a general absence of emphasis on efficiency and profit maximization together with the non-existence of any meaningful link between these two major goals and performance jeopardized the financial profitability of locally managed NDC and INDECO companies.

In summary, the major factors that affected the performance of locally managed enterprises in both Tanzania and Zambia were the over-extension of their roles, the politicization of the managerial selection process as well as operational decisions and decision making structures; and the general incompetence of local management arising in part from inexperience and inadequate training.

In contrast to locally managed enterprises, Tables 1 and 2 further indicate that foreign managed companies of the same holding corporations performed consistently well in terms of financial profitability for the selected years. This is largely, as I argue below, because foreign expatriates tend to be relatively more competent; insulated from political interference; and their remuneration is usually based on performance (i.e. results-oriented). Foreign management as considered here includes expatriates hired on contract terms as well as through management agreements.

Foreign management usually have no social or political obligations to the local community (Jackson, Rosberg 1986:22) and their fate is not dependent on political and bureaucratic fractions of the dominant class. This is primarily because they are recruited on the basis of their competence rather than political patronage or ideological commitment. It is also generally believed that expatriate management are both highly qualified and competent (*Jenga* 1971:28) In addition, political and institutional controls set up to regulate parastatal growth and activity in Tanzania and Zambia did not affect foreign management in the same way they did local management. This is essentially because foreign expatriates or management agents are often hired under specific management agreements or job contracts. Also, stipulations concerning enterprise performance and operational decisions of foreign managed enterprises are often included in the management agreements.

The absence of social and political obligations or interference together with the general competence of foreign management permit expatriates to concentrate on the technical and economic aspects of the companies. And in contrast to local management, foreign managements exercise considerable autonomy and authority over operational and investment decisions of companies under their management (Mramba, Mwansasu 1972:44; Shivji 1973:375; Seidman 1974:614-8). The independent posture of foreign management allows them to incorporate modern management concepts and techniques (Hyden 1980:157; *Jenga* 1974:35; Nsekela 1978:80) which local managers either have no access to, or if they do, have to seek permission from the political or bureaucratic fractions of the dominant (ruling) class. As a result, foreign managed NDC and INDECO companies respectively tended to pursue a Western style of management which put great emphasis on efficiency and profit maximization. Also, the pursuit of profits by foreign managed firms was partially motivated by the management agreements that tied expatriate remunerations to the profitability of the companies under their management. Both the managerial autonomy and results-oriented nature of performance reinforced the efficiency and financial profitability of foreign management.

In summary, the absence of political interference combined with managerial competence and operational autonomy of foreign management facilitated the high levels of financial profitability observed among foreign managed enterprises in both Tanzania and Zambia. In addition, the link between expatriate remunerations and the financial profitability of companies under foreign management reinforced concern for efficiency and profitability. Finally, in contrast to local management who are primarily motivated by concern for job security and career enhancement, expatriate managers often consider such factors to be irrelevant to their job contracts.

There is a tendency for expatriate management to concentrate in joint venture enterprises (which also possess minority foreign shares), but neither Tanzania nor Zambia possesses any explicit criteria for selecting and allocating local managers to some enterprises and expatriate management to others. The selection and allocation of local managers to some enterprises and expatriates to others within the industrial public enterprise sector in both Tanzania and Zambia does not appear to follow any specific or known criteria. Two reasons may explain the absence of such criteria. First, this study concentrated only on the manufacturing subsector of the industrial sector in Tanzania and Zambia. and in both states, the manufacturing subsector is not considered of strategic importance. Secondly, the manufacturing companies studied engaged in less technically complicated activities which would not require highly skilled and professional management.[7] The manufacturing firms studied were involved in a range of economic activities such as food canning and processing, manufacture of metal, wood and chemical products. All these products were produced and sold under government-controlled prices to domestic markets in Tanzania and Zambia. These observations suggest that neither the nature of the enterprise nor the market forces can satisfactorily explain the performance of the enterprises studied.

**The Capacity Utilization of Public Enterprises in Tanzania and Zambia**

This section provides a comparative analysis of the capacity utilization of public enterprise in Tanzania and Zambia by examining the group of companies under the NDC and INDECO that were wholly state-owned (state holding 100% shares) and those that were joint ventures (i.e. the state had 51% shares or more but less than 100% overall). As I noted in the introduction, capacity utilization is an important measure of an enterprise's performance since it relates actual plant output to full capacity utilization in a given plant. In addition, financial profitability and capacity utilization are interrelated since enterprise productivity usually contributes to production costs, which, in turn, affect the rate of return on invested capital as well as surplus generation and profits (Msambichaka, Bagachwa 1983:20-22).

Capacity utilization is often presented as an internal objective to the enterprise, yet as I suggest below, it is largely determined by external factors to the firm such as the state policy of import substitution or foreign exchange allocations. In the case of Tanzania and Zambia, the problem of underutilization of industrial capacity has been widespread especially in the manufacturing sector since the 1970s and persisted throughout the 1980s. Most studies dealing with low industrial capacity in Sub-Saharan African countries tend to blame the problem on the acute shortage of foreign exchange required to purchase imported inputs such as raw materials and spare parts. But almost none of the studies attempts to link the heavy dependence of the industries on imported inputs and technology to post-independence industrial development strategies pursued throughout Africa (Steel, Evans 1984:53-55).

There is no doubt that a shortage of foreign exchange has contributed greatly to insufficient supplies of raw materials, spare parts and machinery needed by the NDC and INDECO group of companies. But it should be stressed that the scarcity of foreign exchange in both Tanzania and Zambia

7 Compare this argument with the concentration of expatriate management in Zambia's copper mining sector due to a combination of the complexity of mining activities and a lack of Zambians possessing the required skills or qualifications.

is a consequence rather than the cause of underutilization of capacity in the industrial sector in general and the NDC and INDECO group of companies in particular. The real cause of capacity underutilization has been and still remains the heavy dependence of most manufacturing enterprises on imported raw materials and spare parts, both of which are very costly terms of foreign exchange.

The dependence of Tanzania's and Zambia's industrial sectors on imported inputs and technology is a consequence of the import substitution industrialization strategy (ISI) adopted and pursued by both states before and even after nationalization. In the case of Tanzania, its Three Year Plan (1961-64) and the subsequent First and Second Five Year Plans (1964-69 and 1969-74) saw import substitution industrialization (ISI) as the local strategy for increasing industrial production and transforming the ideal strategy for increasing industrial production and transforming the country's industrial sector (Fundanga (nd) 9; Meyns 1984:13-15). As I noted earlier, import substitution is the practice of replacing imported products with similar products which are locally manufactured. It was greatly emphasized by post independent African states because they considered it to be the best way of achieving rapid economic growth and diversification of their economies.[8] Import substitution was also expected to create greater employment opportunities, reduce dependence on imports: induce technological transfer; and, increase savings on foreign exchange (Nixon 1982:40-41).

As noted in the introduction to this section, the analysis is concerned primarily with evaluating the impact of the Import-substituting Industrialization (ISI) strategy on capacity utilization in selected industrial public enterprises in Tanzania and Zambia. However, before providing such an analysis, it is important to consider briefly the overall impact of the ISI process on the economies of Sub-Saharan Africa.

The ISI strategy is no longer popular in Africa and other Third World countries because it has failed in several important policy areas (Nixson 1982:49-51). First, the ISI strategy has not achieved rapid economic growth and industrial diversification in Sub-Saharan Africa. And in Tanzania and Zambia, like elsewhere in Africa, preoccupation with this industrialization strategy has contributed to the neglect of the agricultural sector. Also the ISI strategy has failed to alleviate the balance of payments constraint. By creating too much dependence on imported raw materials and technology, foreign exchange earnings that could be saved are used to import raw materials, spare parts and technology. Second, since the ISI strategy is opposed to the development of domestic intermediate and capital goods, imports of such

8 This view was unanimously endorsed by the United Nations which named the decade 1960-70, the development decade.

goods has become important in the import bill of many African countries (Nixon 1982:45). This, in turn, has led to further reductions in the foreign exchange of these countries. Though the ISI strategy is often praised as an 'inward-looking' strategy of development, it has failed to create self-reliance or self-sufficiency in most African countries. In Tanzania, the ISI strategy is blamed for undermining the country's policy of socialism and self-reliance. More than two decades after the Arusha Declaration, Tanzania's economy continues to rely on imported raw materials and technology as well as massive foreign aid. This strategy has failed to achieve self-reliance primarily because '[It is] heavily dependent on foreign capital, technology and expertise. [Also, it is]... based on the consumption patterns, tastes [and] marketing techniques... of the developed capitalist economies...' (Nixon 1982:50). Finally, since the ISI strategy is often based on the existing structure of demand and skewed income distribution, it tends to cater to the tastes and preferences of a small economic elite who have access to luxury items whether imported or locally produced. As a result, the basic needs of the population as a whole are neither met nor considered in the national investment or production plans (Seidman 1974:605). In this way, ISI has failed to transform the structure of the economy or to alleviate income inequalities.

The failure of the ISI strategy to achieve Africa's development objectives has had a significant impact on the performance of public enterprises directly involved in the implementation of this strategy. In particular, the dependence of Africa's import-substitution industries on imported inputs has made capacity utilization in such firms vulnerable to fluctuation in the availability of foreign exchange. As Steel and Evans have correctly observed, the major cause of persistent capacity underutilization in Sub-Saharan African countries is 'the dependence of production on imported rather than domestically-produced inputs... (Steel, Evans 1982:55).

The analysis that follows seeks to show that over-dependence on imported inputs and implements together with the widespread scarcity of foreign exchange generally affected capacity utilization in the manufacturing sectors of Tanzania and Zambia and the NDC and INDECO group of companies in particular. Tables 3 and 4 indicate that the NDC and INDECO subsidiary companies that suffered the most capacity utilization problems were those that were wholly state-owned and also relied heavily upon costly imported inputs to produce their products. This is evident as their capacity utilization declined or stagnated once foreign exchange became scarce beginning in the 1970s and continuing throughout the 1980s. In addition, import intensive firms created in both Tanzania and Zambia following the nationalizations of the late 1960s and early 1970s, tended to be larger and capital intensive (Clark 1978:129-135; Skarstein, Wangwe 1986; Haan 1982:1-42; Seidman 1979:614-24). Because NDC and INDECO companies with 100% state shares were both import and capital intensive, they were vulnerable to foreign exchange problems which Tanzania and Zambia have increasingly faced since the 1970s.

In contrast to post-nationalization firms, most nationalized firms in both Tanzania and Zambia which continued to operate as joint-ventures were neither capital intensive nor heavily dependent on imported inputs (Clark 1978:114-120; Silver 1984:277; World Bank 1981; Haan 1982:28-38). This is primarily because most of the firms established prior to nationalization but operated afterwards by either NDC or INDECO as joint ventures had their technology and import content ossified in the building and plant. But beyond the structure and import content of joint-ventures, most of them rely on suppliers' credits rather than equity for their finance (*Jenga* 1970:41; Seidman 1974:622). In addition, the minority shareholders in joint-ventures continued to supervise the technical aspects of production.

In some instances, the potential partner may demand concessions such as the remission of import duty on raw materials, a monopoly or barring of competing imports and a large payment of management fees and royalties. But despite the costs and potential risks of joint-ventures, most of them were and are considered successful. Also, the concept of joint-ventures remains attractive in both Tanzania and Zambia.

As already noted, the industrial sectors of both Tanzania and Zambia experienced low levels of capacity utilization beginning in the late 1970s through the 1980s due to foreign exchange constraints. But within each country's industrial sector, the severest problems of capacity utilization were recorded in the manufacturing subsector by the import-substitution industries. For example, a study on capacity utilization in Tanzania involving thirty-nine manufacturing firms in 1974 and 1975 concluded that '56% of the firms had problems securing foreign exchange, and that 60% of [problem firms] imported 80% or more of their material inputs (Coulson 1982a:72).

Most NDC and INDECO companies that were wholly state-owned relied heavily upon costly imported inputs and technology to produce their products. In Tanzania, the Tanga Fertilizer Factory (the country's most expensive industrial investment) imported all its chemical inputs. According to Coulson , the fertilizer plant imported a total of 167,000 tons of raw materials to make 105,000 tons of various fertilizers per annum (Coulson 1982b:281). But despite such a substantial importation of raw materials, Tanzania's demand for fertilizers has not been fully met. In Zambia, INDECO's two milling companies imported about 80% of their total inputs in order to produce sufficient stock feeds for the whole country *(Enterprise* 1977, No. 4, p17).

**Table 3: Capacity Utilization of Selected NDC Subsidiary Companies with 100% Shares and Joint-Ventures for Selected Years (by type of ownership)**

| | Subsidiary Companies with 100 Percent NDC Shares | | | | NDC Joint-Ventures NDC Shares >51 and <100 Percent | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Sub-Total | # Capacity Less Than 50% | # Capacity More Than 50% | Percent with Capacity >1/2 | Sub-Total | # Capacity Less Than 50% | # Capacity More Than 50% | Percent with Capacity >1/2 | Total # 100 Shares and Joint Ventures | Total with Capacity over 1/2 | Percent with Capacity over 1/2 |
| 1973 | 10 | 8 | 2 | 20.0 | 8 | 5 | 3 | 38.0 | 18 | 5 | 28.0 |
| 1976 | 5 | 3 | 2 | 40.0 | 8 | 3 | 5 | 63.0 | 13 | 7 | 54.0 |
| 1977 | 9 | 6 | 3 | 33.3 | 8 | 3 | 5 | 63.0 | 17 | 8 | 47.1 |
| 1978 | 9 | 7 | 2 | 22.2 | 8 | 3 | 5 | 63.0 | 17 | 7 | 41.2 |
| 1979 | 4 | 2 | 2 | 50.0 | 7 | 1 | 6 | 85.5 | 11 | 8 | 73.0 |
| 1980 | 5 | 3 | 2 | 40.0 | 7 | 1 | 6 | 85.7 | 12 | 8 | 66.7 |
| 1981 | 4 | 3 | 1 | 25.0 | 7 | 0 | 7 | 100.0 | 11 | 8 | 73.0 |
| 1982 | 5 | 5 | 0 | 0 | 7 | 1 | 6 | 85.7 | 12 | 6 | 50.0 |
| 1983 | 5 | 4 | 1 | 20.0 | 6 | 2 | 4 | 66.7 | 11 | 5 | 45.6 |
| 1984 | 5 | 4 | 1 | 20.0 | 6 | 4 | 2 | 33.3 | 11 | 3 | 27.3 |

**Source:** Compiled from various NDC Annual Reports.

**Table 4: Capacity Utilization of INDECO Subsidiary Companies with 100% Shares and Joint-Ventures, 1980-1983**

| | | Subsidiary companies with 100% INDECO Shares | | | | INDECO Joint-Ventures | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Total INDECO Subsidiaries | Sub-Total | Capacity > 1/2 | Capacity < 1/2 | Percent > 1/2 | Sub-Total | Capacity > 1/2 | Capacity < 1/2 | Percent > 1/2 | Total Capacity > 1/2 | Percent Capacity > 1/2 |
| 1980/81 | 34 | 20 | 8 | 12 | 40.0 | 14 | 8 | 6 | 57.0 | 18 | 47.1 |
| 1981/82 | 34 | 20 | 6 | 14 | 30.0 | 14 | 8 | 6 | 57.0 | 14 | 41.2 |
| 1981/83* | 64 | 35 | 12 | 23 | 34.3 | 29 | 19 | 10 | 66.0 | 31 | 48.4 |

**Source**: Calculations based on data from various INDECO reports and *Zambia: National Commission for Development Planning*, Economic Report 1983, Lusaka, Zambia, Jan. 1984: 171-5.

* **Note**: 1981-83 capacity utilization data by product and type of company. Hence 64 represents products of various 100% subsidiaries and joint-ventures between 1981 and 1983

In contrast to wholly state-owned enterprises, the majority of joint-ventures were neither capital intensive nor import dependent.[9] It is reported, for example, that only 30% of the NDC's joint-ventures relied on imported inputs compared to 74% of its wholly state-owned enterprises (Coulson 1982a:72; Clark 1978:120-2/128-135).

The analysis of the NDC and INDECO companies indicates that lack of foreign exchange did not only hit manufacturing industries hardest but that the effects differed between wholly state-owned firms and joint-ventures. Furthermore, Table 3 shows that after 1981, the NDC joint-ventures experienced a significant decline in capacity utilization. This suggests that the continued deterioration of Tanzania's foreign exchange situation resulting from a crisis in its agricultural exports ultimately affected joint-venture companies. The financial situation of joint-ventures may have deteriorated further as suppliers' credits and access to minority shareholders' capital were curtailed due to Tanzania's deepening economic crisis in the 1980s.

In summary, both Tanzania and Zambia pursued their industrialization through a strategy of import substitution which led to over-dependence on imported inputs and machinery. But it was over-dependence on imported inputs combined with scarce foreign exchange that exacerbated capacity utilization problems within their manufacturing sectors in general and the NDC and INDECO group of companies in particular. Within the NDC and INDECO groups, the most severe problems of capacity utilization were registered in subsidiary companies with 100% government shares as these are both capital intensive and highly dependent on imported inputs. In contrast, NDC and INDECO joint-ventures registered high rates of capacity utilization largely because most of them are less capital and import-intensive. In addition, joint ventures tend to have access to both suppliers' credit and competent foreign management.

## Tentative Conclusions and Implications of the State Control of the Economy for Public Enterprise Performance in Africa

### *Tentative Conclusions*

The limited evidence from the observations based on financial profitability and capacity utilization suggests that state policy and practice are the most important constraints to public enterprise performance in Tanzania and Zambia in particular, and probably Africa in general.

The nationalization measures which were intended to bring the Tanzanian and Zambian economies under state control and guidance, appear to

9 Unfortunately, no reliable disaggregated figures exist for either Tanzania of Zambia which show relative dependence on imported inputs for wholly state-owned enterprises, joint-ventures, or private sector firms. It is therefore difficult to do a comparative import intensive study of wholly state-owned enterprises, joint-ventures and private firms.

have over-extended the organizational and managerial capabilities of both states. In addition, the rapid Africanization program (devoid of rigorously trained and sufficiently experienced local personnel) not only diluted the quality of local management in the public enterprises, but has also failed to provide sufficient skilled local personnel two decades after it was launched. This partly explains why both states continue to rely on foreign expatriates or management agents to the present time. Also state political interference which often characterized the selection and decision making processes of local management, not only limited their operational autonomy but also subverted the economic goals of the enterprises in favor of social and political considerations. This is primarily because the public enterprise sector in Africa serves as an important instrument for political patronage. As a result, local management has lost both autonomy and the desire for financial accountability (both of which are the root cause of the widespread corruption and inefficiency prevalent in most public enterprises in Africa).

Finally, the strategy of import substitution was intended to promote rapid industrial growth, save foreign exchange, and transform the predominantly agrarian economies of both states. Import substitution industrialization (ISI) has failed to promote economic growth and instead created an unintended dependence on imported inputs and technology. And because of the scarcity of foreign exchange, the ISI process has exacerbated the problem of capacity utilization in the import-substitution industries of Tanzania and Zambia.

***Theoretical Implications***

A number of earlier studies on formal organizations in Sub-Saharan African show that they are powerfully affected by the sociopolitical environment within which they operate (Hyden 1975; Leonard 1977; Blunt 1983). The studies further indicate that the state as a source of regulations and constraints as well as a provider of critical resources (e.g. financial credits and personnel); influences the operation of public enterprises in Africa far more than private enterprises in the same environmental setting (Bos, 1986). It is plausible to argue that states in Africa determine both the activities and outcomes/results of public enterprises more than industrial bureaucrats or managers do. For example, in a study on organization theory and practice in Kenya, Leonard (1977) observed that Kenyan African managers, far from dominating their task environment were actually overwhelmed by it as they were too sensitive to political pressures. Leonard (1977) also adds that in neighboring Tanzania, both administrators and managers of public enterprises responded in a similar way to political interest groups organized around economic divisions.

Furthermore, Seidman's (1974) findings on public enterprises in Zambia were similar to Leonard's (1977) observations on the behavior of local public enterprise managers in Kenya and Tanzania According to Seidman (1974), a few Zambian party and government officials together with a small but vocal group of indigenous businessmen tended to influence public enterprise decisions in favour of their own interests. In all the cases cited, both top managers and administrators were political appointees (with little or no business experience or training) and were therefore more concerned about their job security than the performance of the public enterprises they were meant to manage.

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