IMPORT SUBSTITUTION INDUSTRIALIZATION

CASE STUDY OF ZAMBIA

by

HAMID SABZBALOUCH BAM

A DISSERTATION SUBMITTED TO THE UNIVERSITY OF ZAMBIA IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN ECONOMICS

THE UNIVERSITY OF ZAMBIA

LUSAKA

JULY, 1985

APPROVAL

This dissertation of Hamid Sabzbalouch Bam is approved as fulfilling part of the requirements for the award of the degree of Master of Arts in Economics.

EXAMINERS

1. Gideon S. Sogga Ph.D. [External] 8/11/85

2. ..... [INTERNAL] AUG 21,

DECLARATION

I, Hamid Sabzbalouch Bam, solemnly declare that this dissertation has not previously been submitted for a degree in this or any other University.

Signed .....

Date 29 7 1985

Dedicated to my parents

for their unfailing love,

guidance and inspiration.

ABSTRACT

Zambia, like most less developed countries, opted for import substitution industrialization (ISI) as a strategy of economic advancement. The success of ISI performance in Zambia would have resulted in the abundance rather than scarcity of foreign exchange; economic diversification; resolution of the galloping unemployment problem; linkages in the economy with a significant use of local raw materials as inputs and a host of downstream industries especially industries based on mining. In addition, there should have been an abundance of essential commodities at prices that the common person can afford. However these noble government objectives have remained largely unrealised. Unemployment has continued to be rife; queues for essential commodities have continued to be long; foreign exchange has continued to be a problem; diversification of the economy has remained a distant dream.

The crux of the thesis in this report is that some firms in Zambia have achieved significantly good results in the ISI whilst others have performed poorly. On the national average ISI has not succeeded but has the potential to succeed in Zambia. Basic problems include the mistaken conception that ISI can meet all government objectives of employment creation, economic diversification and social welfare justice. Things also went wrong with ISI because ISI came to be regarded as the only industrial development strategy whereas there are other industrial development strategies such as balanced growth industrial strategy; export promotion industrial development; and indigenous industrial strategy in which emphasis is on the use of local raw materials based on labour-intensive production techniques.

On the positive side Zambia has a healthy natural resource base and a population that has become motivated to want to attain great heights in deve .pment. Import substitution industrialization will need to be revamped and given a new direction. It must be regarded as only one of the many strategies, albeit roads to development, but will need to be supplemented by other development strategies. Export promotion is one of the complements to ISI. The government could, through export promotion industrialization (EPI), restructure the economy in such a .nner as to change the present situation in which raw minerals constitute 95% of foreign exchange earnings and make mining the engine of growth of manufacturing industries and agriculture. There is a good case for a complete review of all import substitution industrialization efforts made since independence. The rationalisation of ISI would put Zambia on the path of effective development of the abundant resources for the benefit of all the people of Zambia.

ACKNOWLEDGEMENTS

I wish to acknowledge my indebtedness and gratitude to Prof. V. Seshamani, Chairman, Post Graduate Committee, Business and Economic Studies Department and my immediate supervisor at the University of Zambia for his guidance and invaluable advice which contributed greatly to the completion of this thesis.

I also wish to extend my gratitude to Mr. W. Asombang, lecturer in Economics at the United Nations Institute for Namibia, who assisted me in correcting the draft of this thesis.

Further, my special thanks go to Dr. Patrick Ncube, former head of the School of Business and Economic Studies, University of Zambia, for his constant support, advice and inspiration which guided me throughout my studies at the University of Zambia.

In addition, I wish to express my profound gratitude to Mr. M. Muhsin, Group Financial Director, Zambia Industrial and Mining Corporation Limited, for providing me with all the detailed and necessary information which I needed to complete my work and also for introducing me to various General Managers of the sample companies who provided invaluable information.

Last, but not least, I wish to express my thanks to Prof. James Prescott, Professor of Economics, Iowa State University, United States of America, who inspired me to write the proposal for this thesis.

My thanks are also extended to Mrs. Jennifer Mwanza for her excellent typing of this dissertation.

Table of Contents

List of Tables

CHAPTER ONE

INTRODUCTION

Overview of the problem:

In many developing countries, Import Substitution Industrialization (ISI), and export promotion are often encouraged through protective measures such as import tariffs, quotas and export subsidies. The protection is even more complete when both the immediate product and the intermediate inputs used in producing the product are isolated from foreign competition, and, if the domestic markets are competitive, the domestic resource costs (and prices) of the protected products may remain substantially below the price of imports (in domestic currency).

However, these policies are now seen to be more appropriate for large developing countries than small developing countries, for numerous reasons and it is felt that in these latter countries, domestic industrialization policies may not encourage a competitive market structure. In a small country with limited markets economies of scale may occur only to a single-firm industry. The country's desire to be freed from dependence on foreign ownership of domestic productive factors are thus achieved only through public ownership by means of parastatals. But where parastatals are unregulated and single-firm industries dominate the domestic economy, cost escalation occurs. Intermediate goods produced by monopolies are sold to the single firms producing final products and so the excessive prices of suppliers are reflected in the cost curves of the producers of final goods and services.

The government also may pursue policies to reduce prices and increase the output of parastatals. Sometimes these firms are guaranteed profits at any price-output combination through subsidies and, in consequence, the parastatals become indifferent to the price and output combinations and tend to operate under less than full capacity. Under this situation import substitution and export growth may be increasingly difficult to pursue because of the condition of domestic cost escalation.

Unfortunately, Zambia like many other countries during the early years of development planning, concentrated on ISI without paying much attention to ways in which she could enhance her foreign exchange earnings through the promotion of exports. This may have resulted from the fact that ISI and export promotion are competitive and not pursued at the same time. While this is so to some extent, it is also true that the two policies have a complementary relationship as well. Foreign exchange also is often an unpredictable factor underlying the development plans and strategies in developing countries, and Zambia is no exception to this, especially after the fall in the price of copper (the major foreign exchange earner of Zambia). It is therefore vital for this country to do everything she can to maximize and stabilize her foreign exchange earnings and their use at the same time. Import substitution and export promotion measures were conceived as the means of meeting this objective.

Import Substitution Industrialization policy is not essentially harmful in itself to a country like Zambia. However, the way in which it is implemented can be harmful. The danger in the case of Zambia is that she has chosen to use this policy to develop her industries which are highly

capital-intensive while lacking a manufacturing base which is rooted in domestic resources. Many of the industries based on ISI produce goods suitable only for a high-paid minority of the population. The majority either earn subsistence wages or meet the major portion of their need from subsistence farms. The majority's purchases come from a very limited range of goods, mostly locally produced, but the elite require luxury items like cars and refrigerators. It is inevitable that technologies required to run industries for such sophisticated goods is essentially capital-intensive and often foreign and depend on imported inputs in addition to machinery and spare parts. Furthermore, these technologies are very complex requiring a level of industrialization that Zambia is not likely to experience for many years to come This is why at the moment such manufacturing industries are little more than last-stage assembly plants for their mother companies based abroad.

Furthermore, from the Third National Development Plan, it can be observed that the Government says that its industrialization policy is 'unbalanced'. There had been bias toward ISI with very few enterprises designed to use domestic inputs, or to develop linkages with other sectors of the economy, nor has enough attention been paid to developing groups of interdepending industries which could supply one another with semi-manufactured inputs.

Rationale and methodology:

The purpose of this study is to analyse the factors that have contributed to the performance of import substitution industrialization in

Zambia. Notwithstanding the overall failure of import substitution industrialization in Zambia, it is also noted that there is considerable divergence in the manner in and extent to which the various sub-sectors of manufacturing have progressed in respect of import substitution. The study will therefore seek to examine the factors leading to this divergent behaviour between sectors within manufacturing.

The research methodology, therefore, comprises a coverage of several important government documents brought out by the Central Statistical Office (CSO), and Ministry of Commerce and Industry, industrial monographs, and publications of relevant material and informations as well as field study, using the combination of interviews and sampling procedures. A number of variables such as the year of establishment, assets, product-line, cost, turnover, profit, and employment have been compiled from the above sources and studies. Since the effect of import-substitution is the main focus in this study, it was necessary to prepare a sample of firms for the purpose of conducting interviews with their managers and finance managers. The sample of such firms have been chosen from the whole list of manufacturing firms (public/private) mainly based in Lusaka, Kafue, and Ndola. This has been necessitated by the time constraints of the research.

Outline of the thesis:

The literature review in Chapter two includes the objectives of import-substitution-industrialization. Some theoretical arguments have been presented relating to the experience of import substitution-industrialization in some newly industrialized countries (NICs) and a dis-

cussion of the success and failure of this policy in Zambia.

Chapter three deals with the history of import substitution in Zambia from 1964 to 1983. It is necessary to briefly examine the trend of ISI in Zambia and to see how government thinking has been shaped over the years. The Zambian government has from time to time given its policy position on ISI. These policy guidelines have been reformed from time to time to reflect the dynamic nature of social and economic changes. The documents of national five-year development plans of the government of Zambia have revealed government policy on manufacturing. In addition to available documents, the questionnaire designed for this study contained questions on the evolution of manufacturing industry. All these issues have therefore been articulated in Chapter 3.

Chapter four is on the current aspects of ISI in Zambia. This chapter will use the results obtained in the recent survey through a questionnaire to make observations on several aspects of selected companies that are actively promoting ISI in Zambia. With a view to knowing the most recent trends, the period chosen for this purpose is 1980-83. It is intended to examine individual companies in the samples and also to look at features that are particular to one company which may not necessarily be applicable to another company. This approach will make it easier and more useful when it comes to an evaluation of success or failure of ISI in Zambia.

Chapter five evaluates the performance of ISI in Zambia with a view to proving the hypothesis that some successes have been achieved and some failures have also resulted from ISI policies in Zambia. The evaluation is undertaken based on specific company goals such as Profit Maximization and

government objectives as presented in Chapter 3 on the history of ISI in Zambia with particular reference to the period 1980–83.

Chapter 6 deals with conclusions and recommendations. This chapter evaluates and draws references and underlines the salient facts that emerge from the preceding chapters. Based on the totality of the outcome of the whole study, relevant recommendations have been made.

CHAPTER TWO

LITERATURE REVIEW

An emphasis on domestic economic activities that produce substitutes for imports has been a popular economic development strategy. Import substitution was established in many of the less developed countries (LDCs) of the capitalist world to domestically produce those products for which foreign exchange was previously spent, and so to create employment opportunities for their growing population.

This chapter includes the objectives of import-substituting industrialization (ISI) and some theoretical arguments related to such a policy. The remainder of this chapter is directed to a review of the literature on the experience of import-substitution industrialization in some new industrialized countries (NICs) (South Korea and Taiwan), Argentina, Brazil, India and Nigeria which is followed by a discussion of the success and failure of this policy in Zambia.

Definition of the concept:

Different economists define import substitution differently. Ahmad (4) says it is domestic production of identical goods to replace foreign sources of supply. Chenery (3) defines import substitution with reference to the change in the proportion of imports to total supply (import plus total domestic production) and says substitution takes place if domestic production rises faster than imports. Fred Nixson (5) explains that import substitution is a strategy to create indigenous industrial base for domestic production of goods. It is a development process whereby

LDCs begin with domestic production of consumer goods and then move to produce intermediate and capital goods. However, such a sequence is extremely difficult to achieve in practice and the majority of LDCs have tended to get stuck at the stage of production of consumer goods.

Import substitution as an approach to industrialisation:

In many developing countries the policy of ISI has occurred either as a normal process resulting from economic growth or as a deliberate policy to encourage industrialization with considerable government intervention.

Historical studies show that at the early stage of development a country's import requirements will grow faster than its export as a result of economic development. Therefore, due to structural imbalances between import demands and supply of foreign exchange, a natural incentive to avoid balance of payment difficulties encourages substituting domestic production for imports. Increased taxation of international trade, especially at the low level of development, and taxing consumer goods conform to a development policy to mobilize resources for investment in an attempt to substitute domestic production for imports.

Chenery (3) in his research concluded that industrial growth has three causes, a) substitution of domestic production for imports, b) growth in the final use of industrial products, c) growth in intermediate demand stemming from a) and b). He emphasises the effects of market size which is increased by either a rise in income level or population. When there are economies of scale in production, an increase in market size lowers cost of production and permits substitution of domestic products for imports. An increase in

the size also affects output indirectly by increasing intermediate demand for other industries which experience import substitution.

Hirschman (9) describes four different origins for industrial growth. Besides wars which can bring a strong impulse to industrialization, he emphasizes: (a) import substitution in response to growth of the domestic market (brought about by rising exports); (b) import substitution as an official deliberate policy; and (c) import substitution as a (forced) result of balance of payment crises brought on by increased spending for development.

Deliberate intervention of the government to import substitution, may be induced by the numerous advantages that appear attractive at the beginning. ISI is initially attractive because it meets a demand that is already known and can be measured by existing imports. It offers the possibility of beginning with the easiest, final-stage processes until more experience is gained with modern industrial technology. Local production of consumer goods provides visible evidence of self-reliance and can save foreign exchange (if it involves substantial contributions from domestic inputs including labor and capital, as well as raw materials), an additional attraction is that import substitution can be implemented through policies that protect domestic production and can be seen as a move toward economic independence and political stability.

The above arguments for import substitution have furnished strong incentives that any attempt toward industrialization in LDCs will result in import substituting industries [1, 4, 15].

Theoretical arguments for and against ISI:

The main objectives of ISI as a strategy for development are creation of employment opportunities for a growing population, a rise in the standard of living and improvement of the balance of payment situation (6). Economic independence, political stability, accelerating the rate of economic growth, minimizing inequalities in income distribution increase in public saving and investment are other objectives of import-substitution industrialization. (1) (4) (7) (10).

Since the second world war foreign exchange earnings of many LDCs have been greatly reduced, because for their part, rich countries import unprocessed raw materials and foodstuffs from poor countries which are subject to low income elasticities of demand and prices. By contrast, when the incomes of poor countries rise, their demand for manufactured imported goods from developed countries rises at higher rates. This will change the terms of trade against LDCs and lead almost automatically to a problem in their balance of payments. But, import substitution industrialization strategy will reduce the demand for imported manufactured goods and is a tactic to reduce foreign exchange needs of LDCs by developing industries to produce substitutes for imports (7) (8).

Import substitution industrialization is often encouraged through protection measures such as tariffs and quotas to encourage industrial expansion, serving to attract local investment and stimulate domestic employment. The protection is even more complete where both the immediate product and the intermediate inputs used in producing the commodity are isolated from foreign competition. If the domestic market is competitive the domestic

resource cost (and price) of protected products may remain substantially below the price of import (in domestic currency).

But in small countries with limited markets, economies of scale often occur only to a single firm and this does not encourage a competitive structure. Cost escalation may occur where single firm industries dominate the domestic economy and intermediate goods produced by monopolies are sold to single firms producing final goods. So the excessive prices of suppliers are reflected in the cost curve of the producer of final goods and services. Therefore, import substitution may be increasingly difficult to pursue under the conditions of domestic cost escalation (10).

Contrary to expectation import substitution industrialization has often increased the economy's dependence on imported goods. Import substitution depends at least in the beginning on import of capital goods and inputs in the form of semi-finished materials. This can cause a substantial drain on foreign exchange. On the other hand, failures to secure enough foreign exchange from exports lead to difficulties to import materials and parts for domestic production, and there will be recurring cries of underutilization of capacity and work stoppage. Therefore, a large number of people who leave their land to work in the manufacturing sectors remain unemployed (6).

The growth of luxury and semi-luxury industries is one of the common features of ISI which meets the demand of a small high income group and those consumers who previously could afford to buy imported goods, and thus gives importance to what is unimportant. So the increased income that could generate saving is spent on non-essential commodities and this slows down the rate of economic growth (7).

Social problems also increase as a result of import substitution industrialization. When a country imports a large number of finished goods, inability of most domestic consumers to pay for them makes these goods unavailable to them and thereby lowers their standard of living. But as Mountijoy (6) argues, when these goods are produced domestically from imported materials and parts, inability to import such materials and parts will disturb the economy by reducing domestic income through work stoppage and cause severe output fluctuations in times of foreign exchange crises. It leaves the economy with a few large and relatively high cost industries (4) (9) (6) (12).

The neo-classical position on ISI:

Import substitution achieved from 1950s onwards was more a result of deliberate economic policies. The main instrument used was the restriction of imports of manufacturing goods in the form of tariffs, quotas and multiple exchange rates, often in the response to balance of payments difficulties. The argument is that protection was overdone and led to an inefficient allocation of resources. More specifically ISI is attacked against the following:

1) Government interference. Excessive administrative regulations gave rise to corruption, uncertainty and delays and thus discouraged productive private initiative.

2) Bias against exports. The existence of import restrictions led to a higher exchange rate, reducing the relative gains obtained from exporting.

3) Bias against agriculture. The protection of local industry raised the

prices of manufactured goods relative to agricultural products in the home market and the overvalued exchange rate reduced the domestic currency receipts for agricultural exports.

4) Under-utilisation of installed capacity. Since import controls did not equally apply to capital goods and credit for installing machinery was relatively cheap, factories were over-equipped. Moreover protection in product markets made it possible to earn good profits even at low capacity utilisation.

5) Under-utilisation of labor. Capital goods could be obtained relatively cheaply due to the combined effect of over-valued exchange rates, low import restriction for such goods and subsidised financing conditions, resulting in a bias against employment of labour.

6) Import intensity of ISI. While the importation of consumer goods was reduced substantially, this was achieved at the expense of increased imports of equipment and materials, resulting in more dependence on foreign supplies and foreign exchange crises.

From the above arguments, it is suggested that the government interference should be reduced, the free play of market forces should be encouraged, tariffs and quotas should be lowered substantially and exchange rates should be devalued. Where domestic industry suffered disadvantages, subsidies should be given rather than protection from foreign competition. Such policies would bring the country's productive structure in the line with its comparative advantages.

Contrary to the neo-classical position on ISI, various dependency school writings argue not for less state intervention but for more and of a more

fundamental kind; radical promotion of national and regional industrial policies, greater control over import of technology and foreign enterprises, reform of the tax and incentive system and redistribution of income (21). However, the main arguments which can be advanced about the various dependency writings on ISI are as follows:

(1) ISI tends to accept the pattern of demand as given, whereas it would have been necessary to alter consumption patterns radically.

(2) ISI encourages foreign penetration of the economy; in particular the establishment of subsidiaries of international firms behind tariff barriers and has led to the elimination of many local producers and rendered the industrial structure monopolistic.

(3) ISI involves the incorporation of technologies from advanced countries which were inappropriate to local conditions and therefore tends to lead to heavy outflow of capital in the form of transfer pricing, royalty payments, and so on.

(4) ISI has resulted in the protected accumulation of the indigenous bourgeoisie in alliance with international capitalists.

(5) The ISI could lead to international integration and national disintegration of the economy and society.

Export-oriented industrialization:

The failure of ISI led to the advocacy by the proponents of the neoclassical school of an alternative development strategy which showed all th signs of success. Countries which had adopted this strategy during the 1960s achieved the remarkable rates of economic growth among LDCs and soon

came to be called the Newly Industrialized countries (NICs). The performance of these NICs is impressive by any standard. The neo-classicists argue that this was because they adopted the 'right' policies, by liberalising imports, fixing 'realistic' exchange rates and providing incentives for exports; above all they managed to get factor prices right so that their economies could expand in line with their comparative advantages. Thus, reliance on market forces and integration into the world economy yielded results superior to protection from the world economy. Little concludes that 'The major lesson is that labor intensive export-oriented policies, which amounted to almost free trade conditions for exports, were the prime cause of an extremely rapid and labor-intensive industrialization' (21).

Agricultural-demand-led-industrialization programme (ADLI):

A shift by LDCs toward industrial export-led growth after the failure of import-substitution industrialization led to success in GNP growth, in labour absorption, and in industrialization. But this was accompanied by increasing international indebtedness and by rapidly rising food imports. The strategy of ADLI proposed by Adelman (23) is simultaneously a growth programme, an employment programme (since agriculture is considerably more labour intensive than even labour-intensive manufacturing), a basic needs, food security and income distribution programme, an industrialization programme. It is also a foreign-exchange-saving programme since it will reduce the need for food imports. In fact ADLI strategy would stress the rising of agricultural productivity, especially that of medium-scale farms as a means of achieving industrialization.

ADLI programme would accomplish the industrialization goal by expanding internal demand for intermediate and consumer goods produced by domestic industry.

ADLI offers a hopeful approach for a number of reasons. A successful farming sector would require a large volume of inputs from industrial sector: fertilizer, weed-killers, water pumps, agricultural tools and equipment of all kinds ranging from hoes and ploughs to trucks and tractors. Much of the increased agricultural production would require industrial processing, or provide the basis for new resource-based industries. The development of agriculture will require a good deal of new construction and so boost demand for a wide range of construction materials and equipment. Higher agricultural incomes will be spent on industrial consumer goods. Higher incomes from the industrial expansion would in turn provide an expanding market for agriculture, especially food, with feedback effects within the agricultural sector itself. (22).

Summary:

Many things were wrong with the import-substituting industrialization strategy for development adopted by many LDCs. To begin with, it was not very successful in diminishing import dependence. It proved to be a highly import-intensive activity. It was unfortunately concentrating on highly capital-intensive industries, like automobiles, petrochemicals, domestic demand for whose outputs was limited and exports were ruled out by high domestic production cost. Indeed this strategy concentrated on the activities in which LDCs had comparative disadvantages. Most of the LDCs' new

industries were hopelessly uncompetitive in the world markets, which were bad in view of their continuing import dependence.

Export-growth was introduced after the failure of import-substituting industries once it became evident how painfully slow it is to increase a country's self-sufficiency. The best and cheapest route to approach self-sufficiency, namely, trying to exploit whatever comparative advantage each country had in the world economy was natural and industrialization focused where export possibilities were great. But export-led growth over-encouraged by an exceptionally favourable world economic situation during the 1960s and 1970s made people forget the desirability of some degree of self-sufficiency. Also the distribution of income was not much better than that of the import-substitution strategy.

In our view the ADLI strategy seems to eliminate all shortcomings of export-led growth. It is clearly safer to industrialize on the basis of a domestic mass market than on export mass market, and agricultural development may well prove to be the best and quickest route towards greater self-sufficiency and improving income distribution.

The experience of industrialization in East Asian NICs (South Korea and Taiwan):

Although in the early 1950s these countries pursued an import-substituting industrialization strategy, the undesirable consequences of ISI were less than of other LDCs, reflected in a relatively lower effective rate of protection, lower capital intensity in production and less unfavourable policies toward agriculture. During this phase of labour-intensive

industrial growth or Primary Import Substitution (PIS). non-durable consumer goods production for the domestic market was expanded rapidly Industrial growth in this phase was accompanied in part by the export of land-or resource-based primary products, supplemented by aid and foreign capital. This process of PIS lasted until the end of 1950s, when the supply of foreign exchange and the size of the domestic market became a constraint on growth.

At the end of the PIS phase these countries moved towards export of the same labour-intensive non-durable consumer goods in the Primary Export Substitution phase (PES) which was accompanied by a shift in public policy towards lower protection on products and capital markets, exchange rate reform, and so on, the familiar elements of the open-economy market-oriented EOI strategy. (24)

Argentina:

The economy of Argentina, over the last century was heavily dependent on its efficient agricultural sector, specializing in food grain, feed grain and beef production for export, and now Argentina is one of the most industrialized countries in Latin America. A study of Argentina's progress to develop industrialization reveals the adoptation of import substitution industrialization strategy during and after the Second World War because of a sharp increase in foreign exchange earnings of this country as a result of high demand for its primary products (meat and grain), and reduction in its import of manufactured goods from warring developed countries.

After the Second World War, Argentina used a great part of her foreign

exchange accumulated during the war, to purchase the basic utilities from non-resident foreigners (whose capital had established much of the infrastructure of railways, port facilities, power supplies, banking and insurance) and fostered import-substitution industries by tariff protection instead of using the earning on the importation of capital goods to establish a strong industrial base for the country. Light industries mainly of consumer goods, that needed no high level of technology or of finance were assured of a captive market and led to a wider gap between advanced industrial techniques in developed countries and poorly capitalized Argentine industries.

Adoptation of import substitution industrialization by tariff protection after the world war, seriously affected the economy: Heavy and capital goods industries dependent on imported raw material and sophisticated technologies and the familiar problem of an inadequate home market sufficient to sustain a plant of viable size led in the early years to particularly high production costs. It caused a market movement of labor from agricultural sector to industrial sector. For political reasons the power of trade unions increased and led to wage increases faster than productivity. Inflated wages sharply increased domestic consumption of farm products thus reducing the amounts for export. Exports fell seriously and led to trade deficits, the domestic currency was devalued several times and raised the prices of imported goods including machinery and parts required for the protected import substitution industries.

The above situation suggests that, although industrial development in Argentina had been successful in supplying the home market with textiles,

clothing, footwear, paper, rubber, cement and home assembled cars and tractors, its development over the past years has been disappointing.

Brazil:

Brazil is one of the Latin American countries that has long depended on the export of primary products, and import of manufactured goods from developed countries. But frequent decline in the price of primary products in the world market, especially during world depression of the 1930s and the shortages of imports during Second World War encouraged Brazil to substitute domestic products for previously imported goods and to promote an import substituting industrialization strategy for development.

After World War II, when imports were available again, the government put import controls on finished consumer goods, and promoted imports of raw-materials, semi-finished goods, fuel, and capital goods. This policy succeeded initially to reduce imports and to promote investment in domestic production of consumer goods. But in the 1960s the growing industrial sector needed increasing quantities of imported raw-material, and capital goods and this led to increasing balance of payment pressures which already had been influenced by a sharp decline of coffee price in 1957. In order to solve the problem of foreign exchange, government introduced a system of mini-devaluation of domestic currency to encourage export of manufactured and non-traditional products as well as export subsidies which in themselves became inflationary and raised the domestic index price of consumer goods.

As industrialization progressed in the second half of the 1960s, the structure of the industrial sector also changed. Such industries as metal

processing, primary metals, electrical appliances, transport equipment, and chemicals rapidly grew. However, these industries which are heavily dependent on imported fuel, and raw materials are costly and protected by means of protection and production subsidies. This dependence and the oil crisis of 1973/74, and 1979 resulted in a sharp upturn of inflation and an excessive dependence on foreign finance for coverage of current account deficits.

All in all, the import substitution industrialization strategy for development in Brazil has been both a success and a failure. It resulted in industrialization of the country, but it did not, however, reduce the external dependency. In capital goods industries and intermediate inputs domestic production has been promoted by import protection and production subsidies for utilities and fuel. The agricultural sector, particularly export-oriented agriculture which could generate foreign exchange has been neglected. In brief one could say that, Brazil in fostering import substituting industrialization has given priority to growth, diversification of output *and employment rather than to price stability or to avoiding trade deficits* which involved inflationery pressures and foreign indebtedness in order to finance continuous economic expansion.

India:

India is unique within the Third World for her rapid economic development through industrialization. Emphasis within the industrial sector has been on heavy basic capital intensive industries (with considerable capacity in iron and steel engineering, machine tools, electrical and electronic goods, chemicals and fertilizers) owned by the government, and small

scale industries which are largely centered in the villages and use labor-incentive techniques to make traditional goods. These are now joined by small factory enterprises using power and modern production techniques and making products new to India in a considerable effort to import substitution aided by tariff and import restriction. The small-scale industries which are growing in number, have become a major supplier of consumer goods, and being more labor-intensive, are deemed to have a growing part to play in the economy for creating jobs for unemployed and underemployed population.

It is true that the strategy of establishing import substitution industries has been satisfactory in India and now in most products the country is self-sufficient. The economy today is much stronger, her growing efficiency lessens the balance of payments difficulties and facilitates the growing exports. As an aside, however, one could observe that so long as population growth continues at the current high rates, the low standard of living of the mass of population is unlikely to show much change.

Nigeria:

The main objectives of the industrial policy pursued through an import substituting strategy in Nigeria have been rapid growth and a diversified industrial structure. Industrialization which had been discouraged by the colonial regime came later compared to other African countries. In the early stage of industrialization financial support by the state government, tax incentives and protection led to the expansion of foreign capital and flow of investment from abroad. The import-substituting strategy changed *the structure of imports toward intermediate and capital goods. Local light*

consumer goods industries with limited domestic linkages, assembly plants, and a few intermediate plants like cement, rubber tyre, glass, replaced imports.

Industrial policy especially after the civil war (1971) had been directed at large-scale units and concentrated on the public sector and federal direct investment in industry with little attention to the small and medium scale sector. An active policy of direct participation in industry has been pursued through state corporation and companies (oil production; refining and marketing; iron and steel mining; car and truck assembly; cement; building materials; pulp and paper; fertilizer; salt; machine tools; distilling; agro-industry; furniture). In a number of these sectors the state has a monopoly, but the dependency on imported materials and foreign expertise is very high.

The basic process of import-substituting industries has not altered since independence. Market protection and import controls are applied but not strongly or regularly. A study of not effective protection in 1977 indicates disincentives to export-oriented industries and import-substituting intermediate industries based on local materials. It also shows moderate incentives to consumer goods processing domestic raw material and substantial incentive for low value added, import-substituting consumer goods and assembly type activities. These industries are regulated and subsidized by the state and to a large extent dependent on imported machinery, raw materials, management and have suffered from infrastructural problems and difficulties with technical partners.

It is estimated that 45% of industry by value added at world prices

would be better off under free trade condition, 36% probably or possibly viable and the remainder in varying degrees unviable. They were initially financed by the revenue from agricultural products exports and inflows of foreign capital, but recently it has been financed by oil revenue. In the absence of oil, the process of import substitution would have been made difficult by severe external imbalances and by the inflationary pressure from the agricultural sector. In general oil provides the finance to offset high cost of industrialization. In recent years, however, the Nigerian economy has suffered several setbacks due to the neglect of small and medium scale industries, the inadequate attention given to agriculture as a raw materials resource base for industries, and the disproportionate dependence and mismanagement of oil revenues. Therefore, the import substitution efforts in Nigeria have run into problems and increased its balance of payments deficits.

Import-Substitution in Zambia

Measurement and Assessment of Success/Failure

The industrial policy of Zambia is made up of a set of measures and government actions designed to shift resources into industry, both directly through the budget, and more indirectly through the incentive system of tariffs, quantitative trade restrictions, and exchange rate management. Zambia's manufacturing sector is large and was the leading sector of the economy in the first decade after independence. It is primarily concentrated in consumer goods, and two sectors producing intermediate and capital goods (chemicals and metal products). The structure, rate and efficiency

of industrial growth were heavily influenced by the decision of the government to limit external competition by industrial sector through instruments of trade policy. The high level of production of import-substitution industries has created strong incentives for investment in these industries and the absence of competing import has permitted the domestic prices to be heavily biased against exports and agriculture. (20)

The trends in import substitution industrialization in Zambia have been well documented in Seshamani (26). He calculated the Chenery-Desai measures for the period 1964-80 and found that most of the import substitution occurred in the period 1964-1970 with very little in the sub-periods 1970-1974 and 1974-1980. Though these measures may underestimate ISI for primary intermediate inputs, Seshamani (26, p 7) estimates the overall import substitution at only 3% from 1964-80. Manufacturing import substitution over that period was 63%, albeit, with declining percentages for later sub-periods. Seshamani suggests that negative substitution in the non-manufacturing sectors of the economy accounts for the low overall ability of Zambia's economy to substitute for imports. Imports trends are also documented in Seshamani (26). Nominal manufacturing imports rose from K93 million in 1964 to K375 million in 1980, only slightly under the rate of GDP growth for this period. The manufacturing sector did manage to reduce its shares in total imports from 60% (1964) to 43% (1980). But overall imports rose 457% over this period compared to GDP growth of only 328% confirming the large increase in non-manufacturing imports. Also see the Bank of Zambia reports (27) for the very large increase on customs revenues which are almost all attributable to import tariffs: though these figures

are not rate-constant, revenues from these duties rose from K68.1 million (1970) to K260.5 million (1978).

The import-substituting firms with an annual growth rate of 15% between 1964-75 grew rapidly behind protectionist wall. They were highly capital and import-incentive plants with selected production technologies that were not fully suitable for the local condition, their output did not contribute to the reduction in the import need of the economy, and as shortages of foreign exchange started to develop, a lack of imported inputs led to industrial inefficiency, low MVA (manufacturing value added) per employee, and capacity underutilization particularly in food manufacturing and edible oil plants, factories producing wood products, fertilizer, electrical machinery branches that encourages manufactured imports for meeting shortfall in essential consumer goods. (19)

Structural difficulties have also been cited as a cause of the manufacturing sector's inability to induce economy-wide productivity gains. Seidman, in Turrok, (ed), (28, ch.7) notes the limited high income groups targeted for the products subjected to ISI; import protection for such commodities has tended to raise the costs of lower quality lines designed for low income household. Consumers durables tend to be capital intensive, technologically advanced industries providing a relatively low employment base for the Zambian labour force and the tendencies of parastatals to seek investment outlets for foreign owners persists as a holdover from colonial times. The World Bank report (29, p.29) characterised Zambia as a high-labour-cost country relative to most neighbouring countries and to most developing countries at a similar stage of development and low-capital-cost

(because of low tariff and interest rate) economy with an import dependent manufacturing sector subject to severe output fluctuations in time of foreign exchange crisis. Fry (30, p.69) presents evidence that suggests a positive elasticity of substitution in Zambia's mining and manufacturing industries; higher wages relative to capital costs reduce the labour/capital ration or lower capital costs relative to wages will produce the same results. Higher rates of growth in wages results in lower employment growth rates.

Bhagavan (31, p.23) summarises Zambia's industrialization policies during the (FNDP) and (SNDP). While small and middle sized industrial firms were to be encouraged, principally in areas outside the line of rail, large industrial investments were to be reserved for the parastatal sector to be funded through joint ventures with international donors; the possibility of domestic competition with parastatal exists in some sectors, though whatever scale economies might exist would be reserved for public sector firms. The classification of domestic manufactured goods included more consumption (e.g. edible oil, matches, salts, sugar), luxury consumption goods (primary consumer durables) and intermediate goods used in mass and luxury consumption and export; the latter, however, being confined to copper and other minerals. And virtually no producer's goods are fabricated in Zambia, so that most capital inputs must be imported. The I.L.O. Report (32,p.205) documents the lack of employment generating progress in the modern sectors of industry contributing significantly to the very unequal income distribution within both the urban and rural sectors in Zambia; see I.L.O. (33, p.23-41).

There has been a structural change in Zambia's industrial policy to reduce import dependence and the capital intensity of the manufacturing sector in the light of scarcity of foreign exchange, and the need to accelerate the growth of export oriented enterprises in order to make manufacturing sector a significant net earner of foreign exchange. The government has during 1983 and 1984 reduced direct controls on a wide range of locally produced industrial goods, and devalued the Kwacha to encourage export. However, devaluation has increased the price of industrial inputs substantially and has not significantly improved export performance [(19) (20)].

CHAPTER THREE

HISTORY OF IMPORT SUBSTITUTION INDUSTRIALIZATION (ISI) IN ZAMBIA, 1964 TO 1983

Introduction:

The main focus of this chapter is on the history of industrialization in Zambia and the role of ISI in the industrialization history of Zambia since independence.

Zambia's manufacturing sector at the time of independence was dominated by the food, beverages and tobacco industries. Zambia imported almost all the manufactured goods consumed (28). However, immediately after independence several important factors such as high government revenue from copper, export earnings which rapidly increased the level of government expenditure; increasing demand for industrial goods because of increased wages for a African bourgeoisies and workers; the oil pipeline from Dar es Salaam; expansion of infrastructure and communication facilities; repair shops and associated activities, created extremely favourable conditions for development and rapid expansion of the Zambian manufacturing sector (42). The history of industrialization in Zambia could be divided into the periods 1964-68 and 1969-83.

Unco-ordinated Import-Substitution Industrialization in Zambia; 1964-68

The first White Paper outlined the Zambian government industrial policy in October 1964. According to this White Paper the following were the objectives of industrialization in Zambia:

a) Development and diversification of the economy;

b) Reduction of imports and saving of foreign exchange:

c) Emphasis on labour-intensive industries and promotion of employment;

d) Development of linkages;

e) Surplus production for exports;

f) Dispersion outside the main centers.

In response to the above objectives, the manufacturing sector began to grow (43), and Zambia being a land-locked country, created favourable conditions for the development of state-directed, and self-sustaining industries. But, unfortunately, during this period the state had no clear industrialization strategy nor was any attempt made at prioritisation (42). Thus manufacturing industries were set up either to increase the volume of production which was already being produced in the country or to produce consumer goods previously imported. In order to produce such goods the country had to import electrical and non-electrical machines, vehicles and spares of all kind with no attempt to building up capital goods industries. The production of capital goods industries remained under developed.

Therefore, as the evidence suggests, the industrialization process up to the Mulungushi reform in 1969 was an uncoordinated attempt at import substitution led by the private sector, and meant a continuous dependence on imported capital goods composed of machinery, spare parts and other manufactured inputs for industry.

Planned Import-Substitution Industrialization: 1969-83

In discussing the history of economic planning in Zambia, two important factors need to be considered that made planning a necessity. The first was the decision by the government to intervene in industrial sector activities. This was achieved by taking 51 percent interest in several privately owned manufacturing industries through a state-owned company - the Industrial Development Corporation (INDECO). Secondly, the nationalisation of mining companies in Zambia was supposed to achieve the objective that the state could use the surplus from this sector to develop the necessary industrial infrastructure and through planning investment to key industries.

In April 1968 President Kaunda requested certain enterprises to invite the Government to join their enterprises to the extent of 51 percent of their shareholdings. Government participation was negotiated and Indeco was to hold and manage the assets on behalf of the Government. However, in March 1970, Indeco which at the time had 39 major subsidiaries and holdings in 12 associate companies including manufacturing industries became a subsidiary holding company of ZIMCO.

The social and development objectives of the state-owned enterprises (parastatals) were high priority to Zambianization, employment generation, economic diversification, and rural development. In practice the Government decided what specific investments and actions would further its objectives and issued directions to enterprises to implement its decisions. Government decisions, however, affected several projects within ZIMCO group of companies to operate subsidiary companies that provide services to more

remote areas of the country at uneconomic costs. The location of Livingstone Motors, and Kapiri Glass Products, for instance, was decided on the basis of providing better geographical distribution of employment opportunities. In addition to issuing directions on the nature of investments, the Government exercised control over producers, wholesale and retail prices and also reviewed prices that were requested by parastatal companies. For several commodities, classified as essential consumer goods, such as edible oil, the prices were set by the Government to protect consumers from the full impact of price increases without adequate consideration of producer's costs.

In 1975 the Government paid Indeco a substantial amount of subsidies to help cover the losses due to the price control. For instance, K12 million was paid to three subsidiaries in grain milling and edible oil processing industries (4). The price subsidies coupled with lower income and low profitability meant provision of goods and services at below costs of production, as directed by the Government. The financial position of parastatals or publicly-owned companies was adversely affected (34).

Fall in the copper export earnings in the 1970s also affected different branches of import-substituting industries, and reduced the foreign exchange available for imported inputs. This led to a severe drop in the value of manufacturing output, profit, capacity utilization and high cost of production of state-owned companies. Employment, however, continued to grow in the public sector through efforts to maintain a high rate of employment growth, but led to low labour productivity of the manufacturing sector since 1974.

The overall view of industrial development in Zambia so far suggested,

manufacturing outputs was impressive (about 26%), a disaggregated picture reveals some weaknesses. The high growth was due to the expansion of low-technology, light-manufacturing activities, and the highest growth rate of output during 1970-83 was in the production of textiles and clothing, food, beverages and tobacco, chemicals and non-metallic mineral products. The metal working industry (industrial inputs and metal and engineering) declined over this time (2). The composition of the industrial structure has, therefore, remained unchanged since independence and the Zambian economy is nowhere near the completion of even the first 'easy' phase of import-substitution.

The Third National Development Plan (TNDP) (37) covers the period 1979-83. The section of the TNDP that deals with manufacturing states that the rate of growth per annum (based on contribution to GDP at 1965 constant prices) in the output of manufacturing industry averaged 4.9 percent between 1965-1970 and 4.5 percent between 1971 and 1976. The rate of growth over the latter period compares unfavourably with the target rate of 14.7 percent per annum set in the Second National Development Plan. The considerable shortfall from the planned target of the SNDP period highlights the heavy dependence of manufacturing industry on imported supplies. The poor performance of the sector in the final year of the SNDP was closely related to the serious shortages of foreign exchange which emerged after the fall in copper prices during 1974. Because of the lack of imported supplies of raw materials, semi-manufactures and spare parts, manufacturing production declined by 3.9 percent between 1974 and 1975, and by a further 4.1 percent between 1975 and 1976. Some factories had to be closed down and

workers laid off.

The above reflected the unbalanced industrial pattern which existed in the Zambian economy and which continued over the FNDP and SNDP periods. This tended to be biased towards industries which engaged in the processing of imported raw materials. Very few manufacturing enterprises were designed to utilise domestic raw materials and to develop linkages with other sectors of the economy, such as agriculture. There was insufficient attention paid to the development of group of inter-dependent industries, able to supply each other with semi-manufactured inputs. The contribution of many new industries towards import substitution during the SNDP has, in fact, been marginal. However in some branches of production, significant progress in import substitution was realised during the same period, such as the glass product factory at Kapiri Mposhi, the sulphuric acid plant on the Copperbelt, the tannery at Kafue, fruit and vegetable processing in several smaller plants, and the expansion of cement and lime production.

With the slow growth in manufacturing production over the SNDP, employment in manufacturing industry also failed to increase as planned. The growth in employment over the Second National Development Plan (SNDP) was, in fact, less than the growth in output. While output increased at an annual rate of 4.5 percent per annum, employment grew by only 0.5 percent. In part, the explanation lay in the existence of considerable under-utilization of the manufacturing labour force as well as of plants and equipment during SNDP. No less important, however, was the pattern of industrialization during SNDP. A major part of new investment during the period was directed into industries which, by their very nature, are highly

capital-intensive and generate little additional employment. But the training of industrial labour has made progress during the SNDP and a number of training courses have been conducted. Zambianization has steadily progressed all around, particularly in the public sector (parastatals), in certain fields of management administration and, to some extent, sales (6). Therefore, as evidence suggests so far the last three development plans have failed to stimulate the development of local capital-goods industries and reduce the country's dependence on foreign exchange for imported machinery, spare parts, and other inputs.

CHAPTER FOUR

CURRENT ASPECTS OF ISI IN ZAMBIAN MANUFACTURING SECTORS

Introduction:

For the purpose of this study a list of companies was prepared for sampling and a structured questionnaire was given to the firms before interviewing the officers of the listed companies. The information sought through the questionnaire included: data on the type of ownership; fixed and net current assets; manufacturing activities; costs of production; foreign exchange used; capacity utilization; employment; output; prices; turnover; and profit. In addition to the use of the questionnaire to collect primary data, sources of secondary data included literatures and documents from Zambia Industrial and Mining Company Limited, Industrial Development Company, Central Statistical Office (CSO), Ministry of Commerce and Industry, Ministry of Finance, Tax Office, Lusaka, World Bank office, Lusaka, United Nations Development Organisation (UNIDO). The staff of some of these institutions were also consulted. Each firm's general manager, and the financial controller were interviewed to facilitate the completion and validation of the questionnaires used in this study.

The completed samples provided micro economic data on the 1980–1983 operations of twenty-three manufacturing firms. Twelve of the firms were parastatal companies, and the remaining eleven were private manufacturing enterprises. The enterprises were chosen so as to cover a relatively wide range of products (food, chemical, wood, textiles, metal, and non-metal). Ninety-two percent of the parastatal sector firms completed the

questionnaires, but out of the eleven private firms only four firms completed the questionnaires, therefore, the secondary data collected from the Ministry of Commerce and Industry, and CSO supplemented the primary data collected through the questionnaires.

General observations and preliminary findings of the questionnaires:

The companies covered in this study were incorporated between 1962-1975. This indicates that some of the companies such as National Milling Company and Supa Baking Company Limited were initially established before the Government actually decided to embark upon the programme of Import-Substitution-Industrialization. Therefore it could be argued that these companies that were established prior to the conception of ISI policy were not restructured nor feasibility studies undertaken to evaluate the contribution they could make to the success of ISI. It could also be argued that those companies such as ROP (1975) Limited, Rank Industries that were established prior to the decision to go all out for import-substitution have found it difficult in several ways to operate in changed circumstances. For example, these companies were heavily dependent on imported inputs and skilled manpower. They were initially designed on the assumed basis of continued availability of foreign inputs and therefore tend to be reluctant to encourage the development and use of local inputs.

As for ownership and control of the companies, they are either locally owned or are jointly owned with the foreign interests. The National Milling Company and the ROP (1975) Limited for instance, are parastatals that do not have any foreign collaborators in share capital whereas Chilanga Cement, Kafue Textiles (Zambia) Limited, and Kapiri Glass

Products, also parastatals, collaborate with foreign firms especially in shareholding and management. Thus, both the ownership and control of National Milling Company are in Zambia, while the ownership of the Chilanga Cement and Kafue Textiles (Zambia) Limited is in Zambia, but the control is shared between Zambia and the foreign firms especially TNCs (Transnational Corporations).

The assets position of the sampled companies revealed certain characteristics. The net current assets of the sampled companies as a whole was negative showing the tight liquidity problem during the period 1980-1983. The relationship between the fixed assets and profitability also indicated that the companies either made marginal profits or had less during the same 1980-1983 period.

The production techniques of the sampled companies were essentially capital intensive with about 100% of foreign machines and components. This however, was contrary to the expectation of Government objectives as outlined in the 'Government's industrial policy' in 1964 which emphasised the preference for labour-intensive industries. These companies were increasingly dependent on imported capital goods, raw materials chemicals, spare parts and skilled manpower to run the manufacturing enterprises. Little attempt was made to utilize the local raw materials. Local raw materials were either not available or if they were available could not be used because their quality was low or the foreign controllers of the industries were not keen on exploring the use of local raw materials. However a few companies were dependent on locally available raw materials, since their requirements were available locally in sufficient quantity.

Chilanga Cement, Crushed Stone Sales Limited and Brick and Tile Manufacturing Limited were the examples of companies that use large quantities of locally available raw materials. Also the companies that depend on agricultural products such as ROP (1975) Limited and Zambia Sugar Company reduced this dependence on imported raw materials. But these companies were however dependent on the importation of machinery and equipment.

The manufacturing activities of the sampled companies revealed that these companies were multi-product enterprises producing several commodities. However their manufacturing activity was either stagnant or reduced during the 1980-1983 period. If their activities increased this was negligible. This was due to inadequate foreign exchange to import the inputs. Both the availability of foreign exchange and the rate of foreign exchange use had implications for the operations of the sampled companies as import-substitution enterprises. They depended on foreign exchange for the acquisition of spare parts, chemicals, etc. The actual foreign exchange allocations for the period of 1980-1983 was much less than the requirements of the sampled companies and only in a few cases did allocations approach the requirements. Also under the prevailing exchange rate, the Kwacha was relatively over-valued which made imports cheaper than products processed locally. This provided an incentive for some of the sampled companies to substitute imported products for domestic production and ISI was therefore adversely affected. However, the devaluation of the Kwacha during this period made the imports more expensive and encouraged the higher domestic production by the sampled companies. The operations

of ROP illustrate this point very clearly.

The restricted foreign exchange and therefore unavailability of adequate inputs to run the industries led to high cost of production and low capacity utilization of the sampled companies. Excess employees at low level of production also contributed to high cost of production (as they were based upon 100% capacity utilization rather than the staffing needed to operate at actual capacity used). High costs of production tended to increase the prices of products of the sampled companies output compared with the prices of similar products on the world market and made these products uncompetitive in the world market and could not therefore be exported. Among the companies, only Chilanga Cement and Zambia Sugar Company exported their products to the neighbouring countries. Kafue Textiles (Zambia) Limited exported its products in the form of barter exchange for importing its necessary raw material and other inputs.

The capacity utilization of the sampled companies was very low. The factors that contributed to underutilization of the sampled companies were excess employees, lack of skilled manpower and inadequate foreign exchange, etc. Manufacturing employment continued to grow through public/parastatal sector employment policies during the 1980-1983 period, but in the private sector, however, the employment fell during this period. In accordance with the Government's policy of Zambianization employment gains were entirely of Zambian workers and the number of non-Zambians declined both in private and public sectors. However, the companies suffered greatly as a result of the shortage of skilled manpower (local and expatriate) for day-to-day operations and sudden breakdowns. This led to

lower capacity utilization in most companies. Under capacity utilization of the sampled companies affected the financial performance of the sampled companies. Low production reduced the profits (before and after tax) of the companies and resulted in tight liquidity of the companies to meet the short term funds needed.

Several issues have emerged from the preliminary analysis and general observations of the questionnaires used for this research. Some of the current aspects of import substitution industrialization (ISI) include corporate ownership in terms of shareholding; control of decision making in matters of procurement of raw material inputs, investments, lending, expansion of output and operations and Zambianization. In addition an attempt has been made to look at the impact of assets use and techniques on ISI. There is a tendence for virtually all the companies covered to engage in the manufacture/processing of more than one product. Consequently there is a main product and by-product(s). Manufacturing activities are in effect varied. They are influenced not only by what goes on within the company but by divergent factors. These factors may be internal such as government policy on price control or subsidies, or the factors could be external to the country and include unwelcome economic upheavals that inflationary conditions could provoke.

Most companies that depend largely on external or foreign import of material inputs tend to be affected by imported inflation. The latter arises from the fact that inflation increases the price of raw materials that must be imported in pursuance of ISI. Similarly the importation of technology from irflationary economies tends to affect the performance of

manufacturing industries.

The problem of pricing policy came out very explicitly in the course of research. It was easier to state that the prices of imported products were cheaper than those of locally manufactured goods. The causes of the higher prices of locally produced vis-a-vis the prices of imported items has generally been attributed, almost axiomatically, to the very high cost of production. In practically all the companies interviewed none of them has ever made a serious attempt to diagnose the charge that costs of production are largely responsible for the uncompetitive prices of locally manufactured items. It is true that some of the companies have attempted to compare the actual performance of their operations with the planned performance. This internal X-ray of a firm's performance has, however, been limited to basic variances analysis. Although the latter is important and could be used to good advantage much more indepth analysis of cost factors could make the difference between an effective or ineffective ISI not only for Zambia but also for other countries that might have chosen ISI as its own strategy to pursue economic development.

It was also obvious from the questionnaire responses that the issue of pricing policy was nebulous or unclear, to say the least. Total costs as a concept were understood but concepts such as cost-plus pricing; marginal costing; incremental costing; and the like were being used implicitly probably with inadequate knowledge of the impact that these cost concepts could have on the ISI of many countries. The concept and practice of pricing policy would require closer scrutiny. The different aspects of costing for pricing should take into account the basic costs

of production; the costs of spare parts and machinery; the cost of imported raw materials and the like. A sound knowledge of costing and pricing skills will be inevitable if ISI is to realise some of the goals in the national development plan of a country.

Another problem which has been a source of irritation has been that of foreign exchange availability. This problem has become endemic so much so that even firms such as Supa Bakery that could operate without foreign exchange allocations, nonetheless complain of the lack of foreign exchange. This preoccupation with foreign exchange allocations has tended to adversely affect the performance of manufacturing industries. In fact it could be argued that the general complaints about foreign exchange availability only help to underline the fact that one of the objectives of ISI to save foreign exchange has rather been illusory. It thus seems that as efforts are being made to manifest the objectives of ISI the foreign exchange situation has been getting worse rather than getting better. An attempt will be made in the next chapter to gain a better view of the foreign exchange scenario for the period 1980-83.

Capacity underutilization has also been briefly introduced in this chapter. An indepth analysis will also be undertaken. Suffice it to state, at this point in time, that underutilization of capacity implies inefficiency in planning. This inefficiency tends to affect the capital requirements of the company; the credit worthiness of the company and other considerations such as the tying-up of capital that would have been used in the production of other items or simply deposited with banks for investment. An issue that has not featured in the questionnaire is that

of government policy. The idea of ISI has generally been attributed to the latter and as such an analysis of the impact of government policy on ISI will be done in the next chapter. The importance of government policy must never be underrated or ignored. This then is the background against which to construct the next chapter which is on the performance of ISI in Zambian manufacturing sector.

CHAPTER FIVE

EVALUATION OF THE PERFORMANCE OF ISI IN ZAMBIAN MANUFACTURING INDUSTRIES

Import substitution strategy in manufacturing industries as the questionnaires suggest has not been successful as a whole. Generally the companies require imported inputs and suffered from unavailability of foreign exchange. There was no plan for future substitution of domestic inputs of imported raw matrrials and technological requirements. The prices of their products were high compared with imported products and therefore could not be exported unless there were export subsidies. These are preliminary conclusions that emerge from a broad scrutiny of all the responses in the questionnaires. However for the purpose of this study especially the evaluation of the success/failure of import substituting industries additional criteria for evaluation will be needed. Therefore this chapter will first evaluate some of the sampled companies in detail. After the detailed analysis of selected companies, the goals of Government policy will be used as a background against which to evaluate the performance of ISI in Zambia.

The companies to be evaluated in detail include ROP (1975) Limited, Kafue Textiles Zambia Limited (KTZ) and Zambia Sugar Company (ZSC).

ROP (1975) Limited

ROP (1975) Limited is wholly owned by Indeco Limited and the ownership is ultimately of the Government. Thus ROP is facing the problem of the conflicting requirements of operating commercially (maximizing profit) while acting as a parastatal. The prices of its products are

determined politically on social welfare considerations more than by their market values. Its employment levels are excessive, as they are based upon 100% capacity utilization and the investment policy has been directed towards increasing capacity rather than improving the use of existing capacity.

Both the availability of foreign exchange and the foreign exchange rate have important roles on the operations of ROP (1975) Limited as an import substitution enterprise. The ROP depends on foreign exchange for importing spare parts, chemicals, etc. as well as crude vegetable oil The over-value of the Kwacha, however, provided justification in the past for ROP to substitute imported crude oils for domestic products. In recent years ROP has focused its investment policy on expansion of existing processing facilities with little attention on the economies of the investment activity. The result has been low rates of return and poor institutional performance, whereas the ROP's investment priority should have been placed on utilization of existing capacities to satisfy the existing demand and minimize further demand on the country's scarce foreign exchange.

ROP produces the essential products, (edible oil, washing powder, soap). Its product lines will be increased after completion of the Glycerine projects. However, the sales of its major products are constrained primarily by t e lack of production (insufficient local oilseed) and unavailability of foreign exc ange to import inputs, and finis ed products imports by other suppliers. The capacity utilization of ROP for example for edible oil was less t an 50% in 1984/85. The product

line sales and demand for 1981/82 and 1982/83 were as follows:

Table 1

ROP'S PRODUCT LINE AND MARKET PERFORMANCE 1981-83

	1981-82	1982/83
Oils		
Market demand	29700	32840
Sales	11883	16663
Market shares	40%	52%
Washing Powder		
Market demand	21500	23200
Sales	5442	4250
Market share	25%	18%
Soap		
Market demand	16000	16700
Sales	2889	3554
Market share	18%	21%

The above shows that the ROP operated under capacity utilization and did not produce enough to meet demand. For oils in 1981/82 and 1982/83 ROP was only able to meet 40% and 52% respectively of the total demand. This implies that the balance ought to be imported. Similarly in washing powder ROP could only meet 25% of demand in 1981/82 and only 18% in 1982/83. The general picture that Table 1 reveals is very disturbing. If ROP can supply only about 18% to 52% of market demand for oils, washing powder and soap then it is obvious that there is always a shortage of these products. This partly explains the problem of queues and the efficiency of operation of a quasi-monopoly like ROP. The difficulty of minimizing cost has been further increased by various external factors over which the management has no control; notably foreign exchange, which affects the achievement

of annual targets and prevents greater capacity utilization and lower unit costs. Relevant sales and cost data for the five years to March 1984 are summarized in the following table.

Table 2

Sales, raw material costs for 1980–1984
in million Kwacha

	1980	1981	1982	1983	1984
Sales	30.430	34.350	40.020	55.680	73.270
Raw material costs	21.040	22.580	26.730	39.160	49.030
Other costs	11.260	11.010	12.670	15.420	17.890

Overall sales have increased faster than costs and the big improvement in 1984 reflects the benefits of full foreign exchange funding and new selling policies adopted in 1983. The composition of costs has changed over the period. Administrative costs were on an upward trend and production costs shows the largest proportional increase, but in absolute terms the growth rate was below that of administration. ROP has been operating near the breakeven point for several years; and 1984 result indicated the sharply increasing profitability once this point was passed. The following section however, would focus on reviewing the budget of the ROP (1974) Limited for 1984/85 and 1985/86 to follow the progress of the company.

Review of the six month operation ended 30th September 1984 and the financial year 1984/85.

The plant utilization for the six months ended 30th September 1984 was between 7% and 41% as given below:

Table 3

CAPACITY UTILIZATION IN ROP

	Rated capacity Tons	Actual production Tons	% of capacity utilization
Cooking oil	18750	7601	41
Washing powder	10000	2451	25
Soap	6750	2385	35
Toileteries	180	13	7

The production for the six months under review was low due to inadequate allocation of foreign exchange for inputs. The turnover at the time was K37,412,000 against a budgeted turnover of K51,599,000. The actual turnover for cooking oil and washing powder, for example, was 20 and 34 percent lower than the budgeted figures. The shortfall in turnover for the six months under review was essentially due to the following reasons.

1. Lower production arising from shortage of raw materials and packing material. However, during this period 10,800M.Tones of cooking oil was imported. If the foreign exchange spent on these imports were allocated to ROP, more cooking oil would have been produced.

2. The budget for 1984/85 was based on the assumptions that the price of the company would be increased from July, 1984, which increase in prices did not materialize during the period under review. This lowered production and consequently lowered sales as well and led to under capacity utilization. And uneconomic selling prices for the products resulted in a loss of K815,000 before tax for the economy against the budget profit of K4,320,000 before tax. The loss led to serious liquidity problems for the company during the period under consideration.

The outlook for the financial year 1984/85 suggests that ROP will increase the prices of its products and make a marginal profit of K314,000. However, the foreign exchange allocation continues to be restricted. The lack of foreign exchange affected the liquidity position of the company. The company increased its overdraft facility from its bankers from K3 million to K5 million for normal operations and an additional K2 million from special allocation of foreign exchange.

Budget 1985/86:

The key factor in the budget is the foreign exchange availability for the import of raw materials. Basically almost all inputs, except locally available seeds are imported and the shortfall in the foreign exchange allocation would result in under utilization of the plant capacities and therefore a drop in the production. The company, however, attempted to reduce its imports of crude vegetable oil by 20% over the year from the base year 1984/85 (the company imported 10800 tonnes during 1984/85 both from the aid and commercial sources). Given the foreign exchange constraint the company should utilize the foreign exchange allocation to increase its capacity utilization. For this purpose the company will have to take the following actions:

a) Increase the selling prices from the second quarter of 1984/85 because of expected further devaluation of the Kwacha; increase in the sales tax on imports from 12½% to 15%; increase in the price of local seeds by 20 percent; increase in the price of packing material.

b) Receive the necessary foreign exchange needs of the company to import its requirements of raw materials and other inputs. Based on the foreign

exchange availability, the company would increase its capacity utilization and operate with 55%, 45% and 40% capacity to produce cooking oil, washing powder, and soap respectively.

c) With the increase in selling prices to off-set increased inputs costs and availability of foreign exchange the company would strive to make a pre-tax profit of K6,072,000 with a return on investment of 16%.

d) Embark on certain cost saving measures such as localization of inputs, reduction of certain administration costs, and energy, which are expected to produce results in the long run.

e) Spend K5,029,000 toward capital expenditure comprising K1,053,000 on glycerine projects, and K3,976,000 toward normal capital expenditure. Further, the company has plans to set up a cotton seed crushing plant in Lusaka.

f) The company would intensify the training of graduate students in various local and overseas courses. The expenditure on training will be about K400,000 in 1985/86.

Kafue Textiles (Zambia) Limited (KTZ):

Kafue Textiles is a member of Indeco group of companies, and was founded and incorporated in November 1966. Indeco is the majority shareholder with 55% of shares. Indeco's partners in the company are the Commonwealth Development Corporation (CDC), Textilconsult of Geneva and Amental of Liechtensian who hold a total of 45% shares. The company's product range include cotton, denim dress, African print known as Chitenge, canvas material and curtain material. The aim of Kafue Textiles of

Zambia was to diversify the economy, to save on foreign exchange, to create more employment, to produce cloth for the local market at a price affordable by each average income earning Zambian, and satisfy every part of the economy, even in the remote areas of Zambia as an import substitution enterprise.

Kafue Textiles (Zambia) Limited, has expended twice and the second expansion is still under way, The old mill had an operating personnel of one thousand and five hundred workers. The second expansion is expected to increase operating personnel to two thousand and one hundred workers when it ends in 1985.

However, at the end of March 1984, the operating personnel was two thousand and three workers, of which fifteen were non-Zambian. Kafue Textiles is therefore the second largest employer after Zambia Sugar Company. KTZ is also expected to begin a third expansion from 1985 which would employ more workers and skilled manpower.

The contribution of Kafue Textiles (Zambia) Limited toward saving foreign exchange has been significant. In the first place, KTZ has reduced the importation of finished clothing. Therefore, the foreign exchange which was formerly spent on importing finished clothing, could now be spent on more important and essential needs. Secondly, KTZ saves foreign exchange because most of the raw materials are from locally produced inputs. The cotton that is used to produce textiles is all produced locally by local farmers. However to produce polyester the company imports raw polyester from Italy and Switzerland in terms of barter exchange trade. Zambia exchanges an agreed quantity of grey cloth with

an equivalent quantity of raw polyester. In other words no foreign exchange is involved in the transaction, and instead the foreign exchange is saved. This is an aspect of barter trade, otherwise known as counter trade, that could be used by other import substituting companies.

Kafue Textiles (Zambia) Limited, however, depends on imported dye for no company in the country is able to produce dye. The machinery used in the product line also is imported as also the requirements of spare parts for the machinery. Importsof spare parts are on a regular basis as a condition which the company has to accept when importing the machinery itself. In addition to this, the personnel who are in charge of the maintenance of machinery have to be sent abroad for training.

The success of Kafue Textiles (Zambia) Limited in saving foreign exchange can best be analysed on a relative basis. KTZ is unique among Zambian import substitution industries, in that it does not import its major inputs (cotton). The amount of foreign exchange spent by the economy on the importation of dyes and spare parts to operate efficiently is relatively low as compared to the other import substitution industries.

The success of Kafue Textiles (Zambia) Limited in terms of its contribution toward employment of labour, use of local raw material inputs, mainly cotton, and the meeting of domestic demand for cheaply priced material is an exception to the general trend of most import substitution industries in Zambia. Its uniqueness can be attributed to the fact that being a textile manufacturing industry, KTZ as been able to specialize in textile production and provide better quality material. Furthermore the Kafue Textile's products are moulded for the consumption of the low income earners who make up the majority of the population. This is as

opposed to most Zambian import substitution industries whose establishment was based on the demand for imports which in most cases turned out to be demanded as luxury oriented commodities. Manufacturing industries like ROP (1975) Limited produce necessities but are a failure, because they are unable to meet domestic demand, thus leaving room for continued importing. The reason why luxury oriented industries are discouraged is that there is no room in these industries for capacity expansion due to the low demand (in terms of number of consumers) which necessitates low production in order to avoid wastages. Furthermore, most of the luxury goods can not be exported because of high level of competition on the international market.

Review of six months of KTZ operations up to 30th September, 1984:

The production of finished fabrics was 97% of the budget and the sales was 98% in quantity and 99% in value when compared with the budget for the six months. According to the performance of the six months, the company should have made a profit more than in the budget, but due to the devaluation of Kwacha and cost increase in operation, the actual profit was 82% of the budget. The actual production, turnover, and profit before tax of the company for the period under consideration were as follows:

Table 4

KTZ 6 months performance evaluation

Production of:	Forecast	Actual	Actual as % of forecast
Spinning (yarn) 'ooo' kgs.	1687	1537	109
Weaving (grey cloth) 'ooo' mts.	8428	8023	105
Processing (finished cloth)	7927	8200	97
Turnover:			
Quantity - 'ooo' mts.	7606	8102	98
Value K'ooo'	27172	27345	99
Net profit K'ooo'	3674	4499	82

The company also used the amount of K4,066 million in foreign exchange to meet its requirements of imported raw material and spare parts, capital expenditure, capacity expansion and replacement of the old machinery.

Given the above situation the internal generation of funds as on 30th September, 1984 was K3,357 million. The company carried out its operations with the funds generated together with the overdraft facilities of K6.75 million granted by the bankers. Even though the liquidity position was light, the company met all its obligations.

The outlook for the financial year 1984/85 suggests that the production could be more than the planned budget as a whole but reduced compared with the first six months ended 30 September 1984. The substantial decrease in profit during the second six months of 1984/85 could be a result of increased amount of imported raw materials, spare parts, new machinery, etc. In order to achieve the budget for 1984/85 and improve the cash flow the company plans to take the following undermentioned actions:

1. increase the prices of some of the fabrics on average by 7% from 1st November 1984 and reduce the prices of polyester cotton shirting and light curtains.
2. increase the price of yarn sold to customers by an average of 13% from 1st November 1984.
3. increase the production of fabrics which generates higher contribution.
4. Improve the working efficiency and avoid wastages.

Therefore the company together with the overdraft of K8.00 million

granted by the bankers could become self financed for its requirements of working capital during the year 1984/85.

Budget review of 1985/86:

The production of high and improved quality fabrics acceptable by the market is the key factor for the budget year 1985/86. The company plans to produce 16.708 million metres of finished fabrics of which 15.706 million metres is to be regarded as first grade and the balance to be treated as second grade. However the following undermentioned external and internal factors could be the major constraints on the achievement of the planned budget:

a) competition from the imported substitute fabrics,

b) competition from new textile mills in Zambia,

c) change in the taste and fashion is Zambia,

d) economic recession in Zambia,

e) shortgage of foreign exchange allocation,

f) untrained human resources.

The company tries to minimize the effects of the above constraints by adopting the following measures:

1. appealing to the government against the issue of import licence for substitute fabrics and requesting the allocation of foreign exchange to the company for import of dyes, chemicals, spare parts, etc.
2. overcome the competition from the new mills by producing diversified products of high quality

3. explore export markets for good quality fabrics on barter system or export.

4. carry out a planned training programme for workers.

The budget of Kafue Textiles (Zambia) Limited has been prepared on the basis of the assumptions that:

a) The selling prices of the company's products is to be increased on average by 10% because of the expected decrease in the value of the Kwacha, increase in costs of imported inputs and machinery, increase in custom duty, increase in the costs of local raw material and services, etc.

b) More than K35.0 million in foreign exchange is expected to import raw material, spare parts, and machinery for replacement, to finance its expansion projects, to repay the outstanding loan and interest charges, and consultancy fees. The company expects to obtain the requirements of its foreign exchange from the Bank of Zambia (BOZ), barter system, export, loans, etc. Based on foreign exchange availability the company would operate at 90% of the annual rated capacity. In doing so the company considers the cost reduction measures such as improvement in the working efficiency and avoidance of wastages.

c) The company is also expected to expand its existing plant capacity during the current year for the import substitution purpose and production of new products. The amount to be spent would be financed by the Development Bank of Zambia (DBZ), and other resources. KTZ also would carry out the minor projects such as land and

buildings, plant and machinery to replace old machinery.

d) Internal generation of funds as on 31st March, 1986 will be about K15.0 million. In order to achieve improved cash flow, the selling prices of the company's products are expected to be increased by 10%. Based on the successful operation of the budget for 1985/86, the company's requirements for working capital together with the available overdraft facilities of K8.0 million granted by the bankers to pay back loans and interest charges, meet local capital expenditure, and finance local expenditure on expansion plant that would be self-financed.

e) The company launched a training scheme aimed at strengthening the operations at supervisory level. The company continues to sponsor the staff on long-term courses in textiles technology, accounting, and engineering.

Zambia Sugar Company (ZSC):

Zambia Sugar Company (ZSC) incorporated in 1964 was formed originally to take over from Rhodesia Sugar Refineries Limited. The controlling interest in ZSC was acquired in 1971 by Indeco, who currently hold 78% of the shares. Other parastatal organizations own 8%, Tate and Lyle Limited, the technical partners, have 11% and others 3%.

Zambia Sugar Company is the sole supplier of sugar in Zambia which is considered as an essential commodity and its price was previously determined by the government. The company exports to neighbouring countries and earns a substantial amount of foreign exchange. It also seeks investment opportunities to operate as an agricultural and manufacturing

organization with a vast experience in both sectors, especially agriculture.

The company at present operates both in Ndola and Nakambala. After independence in 1964, ZSC acquired a freehold of 6450 hectares of land in Nakambala, and in 1968 the Nakambala division estate milled its first cane crop, producing 21500 tonnes of raw sugar. As more land was added and more sugar produced the Ndola refinery's capacity become inadequate to handle the increased sugar cane. Accordingly a second refinery, at Nakambala, was built and came on stream in 1974. By 1982 ZSC had expanded to the extent that in the 1982 milling season (April to November) it produced a record of 117058 tonnes of raw material sugar from 9721 hectares in 222 days, an average of 527 tonnes of raw sugar per day. This shows that the tonnages of raw sugar production over the years has increased by no less than 180%.

By early 1980 ZSC was forecasting that the supply of raw sugar from Nakambala would by 1984 exceed the joint capacity of the two refineries. Accordingly ZSC commissioned Tate and Lyle Limited to study the Zambian white sugar market and recommend how ZSC could most economically satisfy the domestic demand.

Under this agreement the Tate and Lyle Limited determined that a realistic estimate of current refining capacity was 70,000 tonnes at Ndola and 40,000 tonnes at Nakambala per year. The study recommended that Nakambala expand to 130,000 tonnes per year and close down at Ndola. Nakambala extension project started in August 1983 and is divided into two sub projects, namely a) Nakambala Eastern Extension which started in August

1983 and is due to be completed in September 1985 with a project cost of K3.6 million and estimated over 16% return on investment, b) Nakambala Factory expansion which started in December 1983 and is due to be completed in March 1986 with the project cost of K25.0 million and expected over 16% return on investment by the end of the project.

Employment:

The Zambia Sugar Company is the largest employer among the parastatal organizations, but its contribution toward employment decreased significantly during 1980-83. Table 5 shows the trend of employment in Zambia Sugar Company.

Table 5

Employment in ZSC

	Zambian	Non-Zambian	Earnings
1980	6608	86	9,930,000
1981	5848	91	10,267,000
1982	5489	92	11,063,000
1983	4577	76	13,022,000

Source: Questionnaire

However, the company did not have any problem in recruiting skilled manpower because the skilled manpower could easily be provided as the result of agreement with Tate and Lyle.

Capacity utilization:

The joint capacity utilization of Zambia Sugar Company in Ndola and Nakambala was on average 67.20 percent for raw sugar and 70.50 percent for

white sugar. However the capacity utilization was due to availability of sugar cane and the old machinery of Ndola refinery. Table 6 shows the capacity utilization of Zambia Sugar Company in 1980-83.

Table 6

The trend of capacity utilization of ZSC for 1980-1983

	1980	1981	1982	1983
Raw sugar	48.9%	73.7%	68.2%	78%
White sugar	51.8%	51.5%	77%	76%

Profitability:

The difference between total cost and sales gives the state of profitability. The costs of Zambia Sugar Company include the cost of imported chemicals and other necessary inputs, sugar making, machinery, spare parts, overheads, foreign exchange loss and administrative costs. It must, however, be noted that these costs were a reflection of assets utilization, and gave a return on investment of less than 2 percent in 1980 and 8 percent in 1983. The trend of profit is shown in Table 7 below.

Table 7

Profitability of ZSC in 1980-1983

	Fixed assets	Turnover	Profit
1980	56,400,000	38,204,000	1,058,000
1981	55,500,00	44,865,000	1,093,000
1982	55,400,000	49,915,000	4,441,000
1983	54,900,000	51,603,000	4,459,000

Source: The questionnaire

The reason for low profitability is the government pricing policy which kept the prices artificially low, as it was considering sugar an essential commodity.

Export:

Zambia Sugar Compary exports its product to the neighbouring countries since 1981. However, the amount was fluctuating during the period. Table 8 shows the export of sugar in 1981-1983 in quantity.

Table 8

The trend of export of ZSC

	1980	1981	1982	1983
White sugar	0	1898MT	107MT	6287MT

Lusaka Engineering Company Limited:

Lusaka Engineering Company known as Lenco is the largest engineering company in Zambia in which Indeco holds majority shares (60%) and the rest are owned by Interscmer, an Italian enterprise. Lenco produces a wide range of immediate and intermediate products such as buses, trailers, nails, flyscreens, conduits, metal and tubular furnitures, window and door frames, etc. for other sectors of the economy. Construction companies, Building Suppliers, Zecco, Incar (Zambia) Limited, are the examples of its major customers and their operation depends on how Lenco provides their needs of materials.

Production in Lenco is organized around two departments, namely, light and heavy engineering. The light engineering department specializes

in the manufacturing of metal furnitures, and standard items (i.e. building material), while the heavy engineering department manufactures trailers, vehicle bodies, etc. Table 9 shows some of Lenco's products.

Table 9

Products of light and heavy engineering departments

Light engineering department	Heavy engineering department
Safes of various types	Vehicle bodies of various types
Waste paper dustbins	Trailers of various types
Open bookcases	Tanks of various types
School equipment	Bus chassis
Office desks	
Bathroom cabinets	
Roofing nails	

Source: Questionnaire and company's publication.

Although the company is an engineering company and produces intermediate products for other sectors of the economy, it is only able to design its products and is not able to produce the necessary inputs or obtain them from local producers because of limited supply or high prices compared to imported ones. Almost all the machinery and spare parts used by the company are imported from its mother companies based abroad. The major suppliers of machineries and spare parts as well as other equipments are in Italy, England, and West Germany. The company imports a high volume of its requirements from Intersomer in Italy, because most of the existing machineries are of Italian make. Also the company lacks the skilled manpower to run and maintain the equipments and as per condition agreements invites Intersomer enterprise or other suppliers to repair and service machineries at the time of breakdowns. Therefore unavailability

of domestic sources of raw materials, spare parts and skilled manpower raises the dependency of the company on foreign suppliers and brings serious problems of foreign exchange for the country. As a result of its dependency and substantial fall in its production it compels the other sectors of the economy to import their requirements from abroad instead of buying them from Lenco.

Outlook for 1984/85:

The allocation of foreign exchange during the period under review was very much short of requirements. Out of the requirement of K2.4 million only K1.6 million was provided by the Bank of Zambia. This caused several major raw materials of light engineering department, such as nail wire, steel for production of door frames, conduit strips and window sections to run out of stock. The stock of trailer components was completely exhausted by the end of the first half year, affecting the production of heavy department during the remaining period of the year. The bus section remained practically idle due to lack of orders as a result of non-availability of bus components. Also due to the Government's new regulations on customs and excise duty and sales tax on all raw materials imported, the landed cost of raw materials went up by 27%. This, combined with the decline in the value of Kwacha resulted in steep increases of raw material costs. However, with severe competition in respect of almost all products of Lenco it became increasingly difficult to increase prices of the products in line with the increased costs of raw material. Due to the above adverse conditions, the company delayed finishing some of the products.

Budget plan 1985/86:

As the company is heavily dependent on imported inputs due to the nature of the products, the availability of foreign exchange is a key factor in determining the level of production. However, the reduction in the market share for Lenco products due to competition is also a constraint to the achievement of the desired level of production.

Based on availability of foreign exchange and increase in selling prices the following assumptions are made:

1) Against a forecast of K12,755 million, a turnover of K19.574 million is budgeted for the year 1985/86. The selling prices of light engineering products are expected to go up by 40%. Similarly, an average price increase of 50% is expected in respect of heavy engineering products due to increased costs brought by inflation.and the diminishing value of Kwacha.
2) Cost increases are in respect of increase in the cost of raw materials on the basis of price indications available for the major imported and local materials; inflation and increases in salaries.
3) Cash sales and advance payments are insisted since the machineries are of old make and in some cases the suppliers are not able to supply the required spare parts. The total expenditure on major projects budgeted for 1985/86 is 1.320 million as detailed below:

Bus body project - plan of machinery	K.220 million
Oxdrawn plough project	K1.100 million

It may be mentioned that a sum of K0.88 million was already paid to the Ministry of Finance towards importation of oxdrawn components. The other capital expenditure budgeted for 1985/86 is 1.550 toward other equipments.

Corporate plan (1985/86-1989/90):

The five year corporate plan indicates that the company will not be able to improve its present situation and would continue to depend on imported raw materials to keep production lines going. The foreign exchange situation would cause operation under capacity and since the lack of foreign exchange forced the company to obtain trailer components, bus chassis and steel under supplier's credit arrangement, the subsequent devaluation and floatation of the Kwacha led to substantial foreign exchange losses and, in consequence, lower capacity utilization. Thus non-availability or inadequate allocation of foreign exchange increases the costs of production and makes the company unable to gain entry into export market.

With regard to ISI the following inferences could be made based on the foregoing analysis of the four companies.

1. The companies perceive their role as contributory to the industrial development of Zambia per se not necessarily in the context of ISI. This inference could be extended to other companies. In fact out of all the companies surveyed none of them had an explicit statement to the effect that their goal was to foster the ISI goals of the government.

2. There is a tendency toward a conflict of government and company

objectives. In pursuance of social welfare goals the government would very much like to keep the prices of manufactured goods low but the companies have tended to attribute their poor performance to government price control policy. However it is too early to evaluate the impact of the recent price decontrol policy on the performance of ISI.

3. Virtually all the companies had common problems of lack of domestic supply of raw materials; inadequacy of foreign exchange; and shortage of local technical skills. These problems had adverse effects on the performance of ISI.

4. There are no linkages among the four companies analysed. For example, ROP Limited does not buy its equipment from Lenco nor inputs from ZSC nor is there any connection between ROP and Kafue Textiles. Rather each company buys its inputs, spare parts, etc. from different countries and by so doing there is a waste of scarce foreign exchange resources. Similarly it could be shown that there are no forward linkages between these companies and other companies in the different sectors of the Zambian economy.

The problems raised here will be much more obvious in the assessment of the overall variables that have been identified as in the next section.

Evaluation of the specific goals of the sampled companies

The company goals to be evaluated are:

(a) Capital-intensity

(b) Foreign exchange used

(c) Employment

(d) Capacity utilization

(e) Profitability

Each of the above (a) to (e) goals will be examined in turn as follows.

(a) Capital-intensity:

Capital intensity deals with the rate at which machines are being used in the company. Capital intensity, and depending on foreign machine method is the common feature of the sampled companies during 1980-1983 period. Some of the companies such as ROP (1975) Limited expanded their existing capacity and new investments are still under way. Zambia Sugar Company is expanding the Nakambala division since 1980 and would close down the Ndola division for it is very costly and the machineries are old. The production of beer is disturbed in Zambia Breweries, because the machinery is old and its spare parts should be made in special design out of the country. Table 13 combines Tables 10, 11, 12 to present a picture of the capital intensity of the sampled companies.

Table 10

Fixed assets of the sampled companies in 1980-1983 period in million Kwacha

Branch industry	1980	1981	1982	1983
Food	20,625	20,544	20,064	19,805
Textiles	15,184	17,234	20,286	40,229
Wood products	2,481	2,494	2,530	2,568
Paper products	,103	0,154	0,329	0,561
Chemicals	85,623	94,555	114,182	78,836
Non-metal	13,171	13,680	14,167	15,634
Metal	3,025	3,870	4,376	4,176
Total	140,210	152,534	175,941	161,008

Source: Questionnaire

The fixed assets have been calculated after yearly depreciation.

Table 11

Employment during 1980-83 for the sampled companies

Industry branch	1980		1981		1982		1983	
	Z	non-Z	Z	non-Z	Z	non-Z	Z	non-Z
Food	2537	43	2298	44	2336	42	1989	38
Wood	859	7	862	7	856	5	859	6
Textiles	1568	26	1745	17	1870	12	1978	15
Paper	53	1	51	1	55	1	50	1
Chemicals	810	27	823	27	937	28	945	32
Non-metal	424	11	432	12	445	10	449	7
Basic metal	339	9	281	6	290	6	116	4
Total	6590	124	6492	114	6689	104	6393	103

Table 12

Turnover for the sampled companies in 1980-1983 period in million Kwacha

Industry branch	1980	1981	1982	1983
Food	64.737	73.029	83.352	83.706
Wood	32.800	33.700	35.900	43.100
Textile	21.482	28.062	31.227	32.205
Chemicals	17.731	18.926	24.242	38.949
Non-metal	5.852	7.650	9.678	10.437
Basic metal	6.336	8.249	8.899	10.340
Total	148.938	170.608	193,288	218.737

Source: The questionnaire

Table 13

Capital intensity of the sampled companies in 1980–1983 period

	Fixed assets	Employment	K/L	K/Q
1980	140.210	6714	20 883	0.941
1981	175.537	6604	23 097	0.894
1982	175.941	6793	25 900	0.910
1983	161.008	6496	24 786	0.736

Sources: Table 10, 11, 12
NOTES: K = Capital L = Labour Q = Turnover

(b) Foreign exchange used:

The dependence of the sampled companies on imported raw materials, chemicals, machinery and spare parts was enormous and increased during the period for individual companies in the sample. The dependence of individual companies on annual imported raw materials was 32 to 79 percent in 1983. The analysis of the sampled questionnaires suggests that the companies used more foreign exchange than the amount allocated to them. Therefore one explanation could be that some of the foreign exchange came from foreign aid. For example ROP received vegetable oil from USA under USA aid programme in 1983. Tables 14, 15 and 16 show the trend of foreign exchange used and the imported raw material during the period.

Table 14

Imported raw material during 1980–1983 in million Kwacha

Branch industry	1980	1981	1982	1983
Food	8.442	13.603	13.817	16.665
Wood	1.570	1.730	1.850	2.100
Textiles	1.842	3.844	3.005	4.014
Chemicals	8.270	8.085	9.635	8.932
Non-metal	1.318	1.666	2.130	1.628
Total for raw material	21.542	28.928	30.437	33.339

Source: Questionnaire and the Ministry of Commerce and Industry

Table 15

Foreign exchange used by the sampled companies in 1980–1983 period in million Kwacha

Branch industry	1980	1981	1982	1983
Food	8.318	13.764	10.762	9.866
Wood	1.560	1.733	1.950	2.450
Paper	0.180	0.111	0.043	0.043
Chemicals	5.385	6.586	5.764	11.675
Non-metal	1.800	2.800	2.000	2.000
Total foreign exchange	17.243	24.994	20.519	26.034

Sources: Questionnaire and the Ministry of Commerce and Industry

Table 16

Foreign exchange used and imported raw materials during 1980–1983 period in million Kwacha

	Forex used	Raw materials
1980	17.243	21.542
1981	24.994	28.928
1982	20.519	30.437
1983	26.034	33.339

(c) Employment:

The number of employees generally decreased during the 1980–1983 period for the sampled companies except in 1982. Also the Government continued the policy of Zambianization and as a result the number of non-Zambians who were holding a high post in the sampled companies reduced. Table 17 gives the information on employment trends of the sampled companies during 1980–1983.

Table 17

Employment and wage bill of the sampled companies during 1980–1983

	Zambian	Non-Zambian	Total	Wage bill
1980	6590	124	6714	11.395m
1981	6492	114	6606	13.829m
1982	6689	104	6793	15.627m
1983	6393	103	6496	18.968m

Sources: The questionnaires; and Central Statistical Office publications

(d) Capacity utilization:

The variables on which capacity utilization depended include : market for output of the industries (local and export markets); raw material availability as inputs (local and imported); foreign exchange availability for import of technology, equipments, and spare parts, keep the industries in production as well as for the foreign raw materials component; skilled manpower (Zambian and non-Zambian) for day-to-day operations and sudden breakdowns requiring immediate repairs to reduce the down time; and the Government policy of rationing the foreign exchange in favour of some companies. From the questionnaire it is obvious that the companies have

had foreign exchange shortages to import necessary equipments and spare parts. This was more severe for the companies whose machinery was old and needed constant maintenance and changing parts. Zambia Sugar Company Ndola division and Zambia Brewerees (both Lusaka and Ndola divisions) are examples. The unavailability of skilled manpower also has helped to operate under capacity. For example Nitrogen Chemicals of Zambia in their 1984/95 budget complained that shortage of skilled manpower has caused stoppages of its production. Other examples were Zambia Steel and Building Supplies, Shonga Steel Industries, etc. where unavailability of raw material, skilled manpower and consequent low capacity utilization raised the prices of products of the sampled companies and made them uncompetitive in the world market. Also excess capacity and high cost of production resulted in some companies such as Nitrogen Chemicals not having domestic as well as export market to sell their products. Nitrogen Chemicals during the period, faced with low demand for its fertilizer because of drought and its sole buyer had stocks to meet two years' demand of local market. Table 18 summarizes the above variables for the sampled companies in 1980–1983 period.

Table 18

Capacity utilization for the sampled companies during 1980–83 in %

Industry branch	1980	1981	1982	1983
Food	62	70.46	69.4	59.35
Wood	65	60	61	61
Textiles	78	79	75	73
Paper	50	60	58	50
Chemicals	62	49	47	33
Non-metal	50	59	58.9	55.8
Basic metal	47	47.6	44.1	63.1
Average	59.14	60.72	59.06	56.46

Sources: The Questionnaire, Unido Publication Feb. 1985. The companies annual budgets.

(e) Profitability:

The essence of the assessment of the success or failure of ISI could be viewed from the perspective of efficient resources allocation and utilization. Profitability could be regarded as a main criterion for the measurement of the success/failure of ISI. The factors which effect profitability include: resource costs; market prices; assets utilization; operating costs; and opportunity costs.

Profitability from the accounting perspective would mean total revenue less total costs, whereas from the economic perspective the concept of opportunity cost of resources must be considered. Thus economists consider profitability as total revenue less total costs plus or minus opportunity costs. However as far as the opportunity costs are concerned macro analysis would be necessary, but that is not within the scope of this study.

Cost of production for the sampled companies was very high because of low level of production, unavailability of foreign exchange to import necessary inputs, shortages of skilled manpower, negative or low, net current assets, which necessitated government support in the form of subsidies. The tablesbelow give the picture of companies' assets situation, turnover, profit, return on investment and growth rate of profit. However, the growth rate of profit was in most cases due to the increase in selling price of the sampled companies.

Table 19

Net current assets position during 1980–1983 in million Kwacha

Branch industry	1980	1981	1982	1983
Food	(3.506)	(4.627)	(0.243)	(0.690)
Wood	11.601	11.493	11.573	13.775
Textiles	3.579	4.984	15.154	9.528
Paper	0.075	0.087	0.214	0.230
Chemicals	4.243	4.537	6.787	11.959
Non-metal	(0.250)	(10.502)	(1.427)	(0.725)
Basic metal	0.744	1.774	1.850	2.208
Total	14.486	16.746	33.908	36.279

Source: Questionnaire

Table 20

Current assets position during 1980–1983 in million Kwacha

Branch industry	1980	1981	1982	1983
Food	21.239	18.816	25.860	28.523
Wood	23.571	22.693	22.245	26.566
Textile	11.883	13.609	27.159	22.295
Paper	0.223	-	-	.195
Chemicals	14.480	15.485	21.480	79.945
Non-metal	3.403	3.832	4.232	5.387
Basic metal	3.608	5.331	6.389	6.392
Total	78.407	79.766	107.365	165.303

Source: Questionnaire

Table 21

Trend of profitability in million Kwacha in 1980–1983 period

Branch industry	1980	1981	1982	1983
Food	0.012	2.537	3.108	0.429
Wood	4.500	4.800	6.500	5.100
Textiles	4.703	5.423	5.245	4.877
Paper	0.004	0.013	0.014	0.016
Chemicals	1.096	(.124)	(.299)	(3.762)
Non-metal	(1.734)	(1.054)	0.538	1.331
Basic metal	0.634	0.697	0.690	1.000
Total	9.220	12.328	15.796	8.991

Table 22

Profitability, return on investment, growth rate of profit, in 1980–83 of the sampled companies

Year	F/Asset	Profit	Growth rate of profit %	ROI %
1980	140.210	9.220	-	7
1981	152.534	12.328	34%	8
1982	175,941	15.796	28%	9
1983	161.008	8.991	(43%)	6

Source: Questionnaire

The variables that have been examined under specific goals of the sampled companies included capital-intensity; foreign exchange used; employment; capacity utilization; and profitability.

These variables are interrelated. Capital-intensity, for example, could lead to a depletion of foreign exchange; a decrease in the employment of human resources; an inadequate use of capacity; and unprofitable operations. Similarly profitability as the objective variable of

companies is a function of the variables already listed. Any one variable could lead to an increase or decrease in the profitability of the company. This means that all the variables must be perceived as a whole rather than as individual items that can be treated in isolation. In the final analysis profit maximization is the main criterion against which a company would want to evaluate its performance. Although the government is also interested in profit maximization, the government would tend to give preference to social welfare objectives. For instance, the government would insist on the retention of employees even when a company is visibly in financial difficulties. The interrelatedness of the variables in ISI thus implies that there should be an integrated approach to the ISI strategy.

The above variables are reflected much more in the next section on ISI and government objectives.

Assessment of manufacturing policy of the Zambian Government

The Zambian Government has been in the forefront of promotion of import substitution industrialization in the country. The Government objectives as presented in Chapter 3 include:

(a) Development and diversification of the economy;

(b) Reduction of imports and saving of foreign exchange;

(c) Emphasis on labour-intensive industries and promotion of employment;

(d) Development of linkages;

(e) Surplus production for exports;

(f) Dispersion outside the main centers.

In response to the above objectives, the manufacturing sector began to grow at a rapid rate after independence but has been in serious difficulties since mid-seventies, and has succeeded very little in promoting the various objectives set out at the time of independence.

Diversification:

The manufacturing sector grew rapidly after independence. During 1964-1975 it achieved an annual rate of growth of about 15 percent but growth became stagnant thereafter. Growth was particularly impressive in the textile, food manufactures, tobacco and chemical branches. Employment also increased substantially over this period. Currently the manufacturing sector accounts for 11 percent of total wage employment.

The main manufacturing activity consists of copper refining, production of alcoholic beverages, sugar and edible oils. Textile factories, chemical plants, cement factories and glass producing units are also in existence. Zambia produces semi-manufactured copper products. An engineering industry manufacturing and assembling radios, bicycles and automobiles has been established, and among major developments planned for the future are: the expansion of truck assembly plants, and the establishment of fertilizer producing units. Money has also been raised for supporting the small-scale and agro-based industries. However, most of the diversificatior has come about as a result of a few capital-intensive investments especially in the public sectors (See Unido (1985), and Seshamani 1984).

Import substitution and export promotion:

Although there has been an early recognition of the need for both import substitution and export diversification to enable the Zambian economy overcome its excessive dependence and sole dominance by the copper sector and also for the economy to achieve self-reliance, not much serious attention was paid to export diversification. In 1981, copper accounted for over 89% of the total exports in terms of value while cobalt and zinc accounted for 4% and 2% respectively. The reason for the lack of achievement in regard to export diversification was that such diversification was hoped to be achieved through import substitution which became the basic industrial strategy. The result was that the growth of import substitution industries did not contribute to a reduction in import needs of the country nor encouraged export diversification. As foreign exchange problems started to develop, a lack of imported inputs became the most important constraint on Zambian industrial growth.

Import dependence

With high import dependence coupled with growing scarcity of foreign exchange, growth for most of manufacturing firms is simply out of the question. Most of the firms are using more than 50% of their raw materials and between 90-100 percent of their spare parts and machineries that are imported. It is only in the food and clothing sectors that the percentages have remained significantly low. Table 23 shows the percentage of dependence on imported raw material for parastatals during 1980-1983 period; (data from private sector is not available).

Table 23

Imported dependency on annual requirements as % of total inputs for the sampled companies in 1980–1983

Name of company	1980	1981	1982	1983
ROP (1975) Limited	61	57	43	32
Zambia Sugar Co.	0	0	0	0
Zambia Breweries	52	55.54	61.49	61.45
National Milling Co.	39.71	64.13	60.3	61.85
Supa Baking Co.	071	071	079	071
Zambia Steel and Building Supplies Limited	30	30	30	28
Nitrogen Chemicals Co.	20	20	40	45
Kapiri Glass Products	72	79	71	79
Chilanga Cement	0	0	0	0
Crushed Stone Sales Limited	0	0	0	0
Kafue Textiles	25	31	28	32

Source: Questionnaire

Table 24 shows imported inputs into manufacturing and total imported inputs into all industries and percentages from 1975–1980. The data after 1981 are not available.

Table 24

Import dependency on imported inputs into manufacturing and into all industries in 1976–1981 in K million

	1975	1976	1977	1978	1979	1980	1981
Imported inputs into manufacturing (F.O.B.)	186.7	151.1	170.8	144.2	183.3	292.5	327.3
Total imported inputs into all industries (F.O.B.)	334.7	266.4	289.6	227.3	255.6	482.4	496.2
Percentage ($^{a}/b$)	55.8	56.7	59.0	63.4	69.0	60.0	66.0

Capital intensity and import dependence:

In a country like Zambia in the manufacturing sector high import

dependence is associated with capital intensity of production since with no significantly developed indigenous capital goods sector, most of the capital would be imported. In Zambia, capital intensity has been somewhat declining in the manufacturing sector as a whole as also in several sub-sectors of manufacturing. However, the overall import dependence has not commensurately come down. Increasing trends in capital intensity are associated with increasing percentage dependence on imports, while decreasing trends in capital intensity do not seem to be invariably accompanied by decreasing trends in import dependence.

For example, Rank Industries has registered continuously declining capital intensity since their inception until 1983, but there has been no decline in its percentage import dependence. In the case of Kafue Textiles Limited decline in capital intensity has resulted in marginal decline in import dependence.

Export performance:

While there has been no abatement in import dependency, there has been hardly any achievement on the export side. Out of the entire sample of 23 firms only Chilanga Cement and Zambia Sugar Company reported exporting anything at all. Due to stiff competition in the world market and uncompetitive prices of the Zambian goods, even those firms were not optimistic about export prospects.

The rest of the firms do not even contemplate export since their primary concern is to improve capacity utilization rates and produce enough for domestic market in the first place. Firms with obvious export potential also experience some general as well as specific problems such as

transport costs and unfulfilled local demand.

Linkages:

Linkages in Zambian economy have been very weak and the growth of manufacturing sector has contributed very little to the development of linkages. The third national development plan (1980) observed "very few manufacturing firms which emerged during those two plan periods (i.e. First and Second Plan Periods) were designed to utilize domestic raw materials and to develop linkages with other sectors of the economy such as agriculture. There was insufficient attention paid to the development of groups of interdependent industries, able to supply each other with semi manufactured inputs. Assembly plants such as Livingstone Motor Assemblers and ITT have simply replaced imports of assembled products with imports of unassembled products".

Government objectives with regard to ISI have been presented in the preceding section. The following is a summary of the causes of the inadequate achievement of these objectives.

(a) The ISI requirements were not properly understood with the result that ISI came to be regarded as the only strategy for the manufacturing sector. For example in addition to ISI there is also export promotion industrialization, balanced growth industrialization, etc. ISI alone will therefore not accomplish the government goal of diversification of the economy

(b) Because of the mistaken perception of what is involved in ISI, there has been a tendency to increase the import of raw materials, technology and spare parts. This has resulted instead in the use of more

foreign exchange and has not helped the government to reduce imports.

(c) There is no linkage between the mining sector and other sectors of the economy. The mining sector, for instance, accounts for about 95% of Zambia's export earnings but the minerals are not processed in Zambia. This means that ISI is frustrated through the reluctance of mining companies to engage in ISI activities.

(d) The preference by the companies for capital-intensive production techniques has frustrated government policy to create employment through ISI. In fact all the companies have no explicit policy on the encouragement of labour-intensive production techniques. Government's goal of more employment can only be achieved through labour-intensive production techniques.

(e) Companies prefer to locate in the main towns along the line of rail. This is because the infrastructure is already developed and transportation is available as well as the abundance of people looking for jobs at any price. In effect the companies are usually not willing to locate away from the main centres on the excuse that outside areas are too remote from the places of consumption or the market, etc.

(f) The Zambian government's international commitments especially in the championing of the liberation struggle of neighbouring countries has contributed to the deterioration in the performance of ISI. The government has had to spread its resources especially foreign exchange resources over the demands of ISI and the requirements of the liberation struggles in the subregion.

(g) The expansion of government involvement through nationalisation/

parastatals has meant that the private sector has had to either compete with the government for available foreign exchange or the government has had to be compelled to finance inefficient parastatals that would have gone out of business if left on their own.

All these causes taken together have led to the inadequate realisation of government objectives for import substitution industrialization in Zambia. There has also been a tendency to pursue the ISI on a trial-and-error basis. It must be understood that ISI is only one approach to the attainment of government objectives which have all been assigned to ISI. In other words there has been a tendency to expect too much from ISI. The next chapter will be on conclusions and recommendations on the direction of ISI in Zambia.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The Zambian manufacturing sector grew rapidly after independence under a high protectionist wall. From 1964 to 1975 it achieved an annual growth rate of about 15 percent, but stagnated thereafter. Growth was particularly impressive in textiles, food manufactures, tobacco, and chemical branches without a significant structural change. The growth was capital- and import-intensive and of an 'easy' import substituting character, in the sense that it remained confined to the consumer goods branches and did not lead to a contraction of the capital import needs. Despite the growth of domestic components in the apparent consumption of some goods, the overall import dependence of the economy increased.

The share of manufactured imports in total imports has fallen significantly, reflecting an increase in the import of raw materials and food. The main manufactured imports are non-electric machinery, transport equipments, textile yarn, iron and steel, and petroleum products. Most manufactured imports constitute essential production inputs or are used for meeting shortfalls in essential consumer goods. Therefore there exists relative potential for a further immediate reduction in imports to deal with the problem of the rising debt burden of Zambia.

Industrial productivity and efficiency are relatively low in the Zambian manufacturing sector. The import substituting firms which grew behind high protectionist walls selected production technologies that were not fully suitable to local conditions and the shortage of foreign

exchange and therefore, shortages of inputs created a severe supply crisis for the manufacturing sector. A major problem is capacity utilization. Capacity utilization especially within the Government-owned industrial corporations varies widely. In general, capacity utilization was about 60 percent in 1980 and 56 percent in 1983. It is particularly low in food manufacturing and edible oil plants and factories producing wood products and fertilizer.

Manufacturing exports are very low and represent a small portion of total Zambian exports. The export of non-ferrous metals constituted 99.07 percent of Zambian export. Sugar, cement and some chemicals are also exported. But it has been argued by Government economists that potential for export growth also exists in the food manufacturing, textile, wood and metal product branches.

In brief the following appear to be some of the prominent characteristics of the manufacturing sector of Zambia.

i) The sector has grown large enough to become a significant part of Zambian economy. Its role, therefore, can not be under played despite its unsatisfactory performance so far;

ii) Its structure and intra sectoral compositions have not undergone any significant change in the desired direction;

iii) The sector continues to be dominated by consumption goods production and to neglect the capital goods industries;

iv) The import dependence of the sector has remained very high especially for raw materials;

v) The combined effect of (iii) and (iv) has been the inadequate

development of inter sectoral linkages within the domestic economy;

vi) The contribution of the sector to export diversification and foreign exchange earnings has been minimal. As a result, the sector continues to be heavily dependent on mining, especially copper, for its own growth.

As pointed out by Seshamani (1985) the increased dependence of manufacturing inputs imports on copper exports and of manufacturing production on imported inputs has caused the manufacturing sector of Zambia to be caught in a vicious circle. A circular constellation of forces have been acting and reacting on one another so as to keep the Zambian manufacturing sector at low rates of growth.

In recent years capacity utilization rates in the manufacturing sector have been about an average of 59 percent and in some of the sub sectors like wood and wood products, paper and paper products and chemicals and chemical products it has been 40 percent below.

The foregoing conclusions and the preceding analysis will all be used in making recommendations on ISI direction in Zambia based on this research project.

RECOMMENDATIONS

High dependence of the manufacturing firms on the country's foreign exchange and imported inputs, have caused the failure of import substitution industrialization in Zambia so far. This is the backdrop against which to make at least ten recommendations that could lead to better performance of the ISI in Zambia. These recommendations will be articulated in the paragraphs that follow.

1. Import substitution industrialization should be an inward-looking strategy rather than an outward-looking one. The inherent weaknesses in the present strategy of Zambia could be overcome if the strategy is made inward-looking in terms of sourcing of raw materials and other inputs. The success of Kafue Textile Zambia Limited is an example. It is one of the few firms that does not import its major inputs, and by securing additional cloth to supplement its own production through a barter exchange system, it has rationalized the use of foreign exchange. The firm has consequently not suffered any serious recession or unprofitability of operations. Its products are not luxury-oriented and are relatively cheap priced, and has established forward and backward linkages.

   However, even if a firm's dependence on imported inputs in terms of quantity may seem low, the value of the imported raw materials and other inputs could amount to a high share of the total cost. Such firms can not be regarded as successful manufacturing firms in terms of the inward looking goals of ISI. Zambia Ceramics for instance depends largely on locally supplied clay and hard materials which

constitute about 95 percent of the required raw materials. However, in value terms, the imported inputs can constitute over 30 percent of total raw material costs. This is more critical because it demands foreign exchange, and requires costly and problematic transportation into the country. (46)

2. Currently import substituting firms are dependent on imported raw materials in two ways: a) the imported technology and machinery may not use domestic raw material or it is not available; b) the desire of the firms to import raw material is with a view to improve the quality of their products.

Product quality is no doubt an important thing, but the primary concern of manufacturing firms should be to minimize the use of foreign exchange even if it means making some concessions on quality. In this line, the scientific and research institutions such as National Council for Scientific Research, and Geological Survey should make concerted efforts to identify the quantity and quality of all raw materials that are available in Zambia.

3. The inadequacy of capital goods industries and lack of linkages has been due to the high import dependence of firms which otherwise have high linkage potential. Lusaka Engineering Company (LENCO), for example, could play an important role in providing intermediate inputs and spare parts for firms producing final goods. A shortfall in foreign exchange and hence a shortfall in its required imported inputs has affected Lenco's production. It has, therefore, been unable to meet the demand of other firms which want to buy from Lenco.

Consequently, those firms are forced to import their requirement of inputs instead of buying them from Lenco. Therefore, valuable forward linkages are thus lost. The gradual replacement of foreign eechnology by indigenous technology and the development of adequate capital goods is necessary. In order to do so, it may be suggested that the Government could refuse the issue of manufacturing licenses for firms which are likely to be highly import-dependent. Firms which have proven that they have localized their production process, should be provided tax holidays for their first few years.

4. So far tariff on imported raw materials and capital goods has been quite low. This has tended to encourage preference for imported raw materials and imported capital goods. As a result there is no incentive to use local raw materials and also no incentive to establish capital goods industries. This situation has contributed to the failure of ISI. It is therefore recommended that the Government should impose a tax on all raw materials imports not only to collect revenue but also to encourage industrialization in the country. This view was shared by nearly all the companies surveyed.

5. One of the reasons that manufacturing development has not penetrated the provinces outside the line-of-rail is because most of the units have been of a large-scale and capital intensive nature. The other reasons are the absence of infrastructure facilities and inadequate market in the under developed region..

Thus a need to restructure the Zambian economy is felt. The first step might be the development of small-scale industries as a solution to many of the problems of the manufacturing sector and of the Zambian economy in general. Small-scale industries are generally more labour-intensive and hence can promote employment with relatively small investment. Since the level of employment in manufacturing sector, as questionnaire reveals, has dropped, the small-scale industries, especially if they are based in rural areas, would absorb the unemployed and decrease migration from rural areas to urban areas by generating income in the rural areas.

6. Agricultural sector should also be promoted. National development of agriculture as the primary sector and developing industries with strong emphasis on agriculture may be one of the best ways to increase productivity of manufacturing sector in Zambia. Raising of agricultural productivity especially that of medium-scale farmers, as a means of achieving industrialization would accomplish the industrialization goals by expanding internal demand for intermediate and consumed goods produced by domestic industries. This is a helpful approach for a number of reasons. Agricultural sector would require a large volume of inputs from the industrial sector such as fertilizer, water pump, agricultural tools and equipments of all kinds. Much of the increased agricultural production requires industrial processing, or provides a basis for new resource-based industries. The development of agriculture will require a good deal of new

construction. Higher agricultural incomes are spent with progressively more emphasis on industrial consumer goods. Higher income from industrial expansion would in turn provide an expanding market for agriculture, especially food. It is also a source of absorbing labour and therefore would decrease the rate of unemployment.

7. Under capacity utilization is a common element of manufacturing sector in Zambia. Some of the reasons that are responsible for under utilization have been identified in the text and include shortfalls in foreign exchange allocation for imported inputs; lack of local raw materials; shortage of expert maintenance crew; breakdown of foreign machinery with no spare parts available. These are problems that should be overcome to increase the capacity utilization, rather than expanding capacity that may never be used. Nitrogen Chemicals and ROP are examples of companies that expanded their capacity rather than increasing their capacity utilization. ROP produces edible oil which is an essential commodity but highly priced. Therefore, an increase in the capacity utilization could reduce the cost and hence the price of the products and also reduce the importation of edible oil for meeting domestic demand. The case of Nitrogen Chemicals is much more interesting. It operates with capacity utilization of about 30 percent but had produced fertilizer in 1984 that, as has been pointed out in the text, could not be sold because Namboard, the only distributor of fertilizer,

had enough stock to last the country for two years consumption. This was due partly to the high price of fertilizer produced by NCZ and the fact that Namboard itself imported fertilizer that was much cheaper than that of NCZ.

8. A successful firm must cater to the demand of the majority of the population and its products must be sold at prices which they can afford. However, although the suggestion is that price should be low, the low price should be achieved through productive efficiency and not due to forced Government policy. For example, the price of sugar was artificially low not because of low cost of production but because of Government price control policy. The success of Kafue Textiles is an example of low production cost and therefore low price products that majority of the population can afford. Therefore Government should reduce or eliminate the subsidies altogether, because they lead to an increase in costs and make certain firms inefficient. The subsidies could be used for the creation of employment in other sectors of the economy such as agriculture. The case of Nitrogen Chemicals and subsidies is illustrative of the point made here.

9. The export diversification to earn foreign exchange for the country is necessary. Effort should be made to encourage the firms whose products are expertable. This may be done through the restructuring of the tariff system and the foreign exchange regime with a view to evolving a balanced economy based on a

balance between import substitution and export promotion industries as well as a balance in the other sectors of the economy. There is also the need to develop small-scale industries that are labour-intensive; and implement other policies that are supplementary to ISI.

10. Training in educational institutions should be in conformity with industrial needs with a view to enhancing the innovative capitilities of local scientists, engineers, and technologists, in view of the limited technical expertise in Zambia.

In the final analysis import substitution industrialization can contribute significantly to the realisation of government objectives. In the course of implementation it gets modified in alignment with realities. The potential for the success of ISI in Zambia is great and given government determination the ISI can succeed in promoting the overall industrial development of the country. Since Zambia is at present a mineral-led economy in the sense that 95% of its exports come from mining, it could be proposed that there should be an integrated development of the economy. This implies that mining can promote the development of the other sectors of the economy, which sectors would in turn provide inputs for the mines. There will be forward and backward linkages if an integrated approach to industrialization is pursued. This integrated approach would provide an environment in which ISI can grow from strength to strength and contribute to the overall development of Zambia.

A P P E N D I X

The sampled companies

No.	Name of the company	Place	Sector	Year of incorporation
1	Refined Oil Products Ltd.	Ndola	1	1975
2	Zambia Steel and Building Supplies	Lusaka	3	1965
3	Kafue Textiles Zambia Ltd.	Kafue	2	1966
4	Supa Baking Co.	Lusaka	1	1962
5	National Milling Co.	Lusaka	1	1966
6	Kapiri Glass Product	Kapiri Mposhi	6	1972
7	Crushed Stone Sales Ltd.	Lusaka		
8	Nitrogen Chemicals (Z) Ltd.	Kafue	5	1967
9	Zambia Sugar Co.	Lusaka	1	1960
10	Chilanga Cement	Chilanga	6	1940
11	Zambia Breweries	Lusaka	1	1966
12	Lusaka Engineering Co.	Lusaka	7	1971
13	Vindas Drug House	Lusaka	5	1968
14	Brick and Tile Manufacturing	Lusaka	6	1971
15	Shonga Steel Industry	Lusaka	7	1974
16	Rank Industries	Lusaka	4	1974
17	Plastico (Z) Ltd.	Lusaka	5	1976
18	Metal Containers Ltd.	Lusaka	8	1968
19	Family Biscuits	Lusaka	1	1973
20	Sobi Industries	Lusaka	4	1970

No.	Name of the company	Place	Sector	Year of incorporation
21	Central Cigarette Manufacturing Co. Ltd.	Lusaka	9	1964
22	Unique & Company Ltd.	Lusaka	3	1975
23	Zambia Knitting Mills	Lusaka	2	1977

Key to sector numbers

Sector No.	Sector
1	Food, beverages and tobacco
2	Textiles and wearing apparel
3	Wood and wood products
4	Paper, paper products, printing and publishing
5	Chemicals, petroleum, plastic and rubber products
6	Non-metallic mineral products
7	Basic metal products
8	Fabricated metal products
9	Other manufacturing

REFERENCES

1. Clark, P.B. Planning Import Substitution. Amsterdam: North-Holland Publishing Company, 1970.

2. Todaro, M.P. Developing Planning. London: Oxford University Press, 1971.

3. Chenery, H.B. "Pattern of Industrial Growth", American Economic Review, September 1960; pp.624-654.

4. Ahmad, J. "Import Substitution - A Survey of Policy Issues", The Developing Economies, December 1978; pp.355-372.

5. Fransman, Martin, (ed). Industry and Accumulation in Africa. London: Heinemann Educational Books Ltd., 1982; pp.38-58.

6. Mountjoy, Alan. B. Industrialization and Developing Countries. London: Hutchinson & Co. (Publisher) Ltd., 1982.

7. Mitra, P.K. "Import Substitution and Export Promotion as means to industrialization", Economia Internazionale, August-November 1974; pp.524-537.

8. Elbialy, F. "Comparative Advantage and Economic Development", Economia Internazionale, August-November 1974; pp.616-629.

9. Hirschman, A. O. "The Political Economy of Import-Substituting Industrialization", Quarterly Journal of Economics, February 1968; pp.1-32.

10. Prescott, J. R. "Parastatal Pricing and Import-Substitution: A Case Study of Zambia". University of Zambia, December 1983.

11. Killick, Tony (ed). "The Substitution of Labour for Capital in Kenyan Manufacturing", Paper on the Kenyan Economy. London: Heinemann Educational Books, 1981; pp.254-262.

12. Morawetz, D. "Employment Implication Industrialization in Developing Countries", The Economic Journal, September 1974.

13. Seidman, Ann. Comparative development strategies in East Africa, London: East African Publication, Trust House; 1972; p.94.

14. Roemer, M. Joseph. J, Stern. "Development Planning", Cases in Economic Development. London: Butterworth, 1981; pp.3-25.

15. Saunders, Christopher. The Political Economy of New and Old Industrial Countries. London: Butterworth & Co. (Publishers) Ltd., 1981.

16. See note 1.

17. Desai, Padma. "Growth and Structural Change in the Indian Manufacturing Sector 1951-1963" The Indian Economic Journal, October-December 1969; pp.203-283.

18. Athukoralage, P. "Import Substitution, Structural Transformation, and Import Dependence - A Case Study of Sri-Lanka", The Developing Economies, 1982.

19. Seidman, A. Comparative Development Strategies in East Africa. London: East African Publishing House, 1972.

20. Killick, Tony (ed). Paper on the Kenyan Economy. London: Heinemann Educational Books, 1981.

21. Schmitz, H. "Industrialization Strategies in LDCs". The Journal of Development Studies, October 1984; pp.1-21.

22. Kaplinsky, R. "The International Context for Industrialization in the coming Decade". The Journal of Development Studies, October 1984; pp.75-96.

23. Adelman, Irma. "Beyond Export-Led Growth". World Development, September, 1984; pp.937-949.

24. Scitovsky, Tibor. "Comment on Adelman", World Development, October, 1984; pp.953-954.

25. Evans, D, Parvin Alizadeh. "Trade, Industrialization, and Visible Hand". The Journal of Development Studies, October 1984; pp.22-46.

26. Seshamani, V. (1963), Import substitution and Export promotion in the manufacturing sector of Zambia, Department of Business and Economic Studies, University of Zambia.

27. Bank of Zambia's Reports

28. Turok, Ben (ed) (1979), Development in Zambia, Zed Press, London.

29. The World Bank (1981), Accelerated Development in Sub-Saharan Africa an Agenda for Action. World Bank Washington DC.

30. Fry, James (1979), Employment and Income Distribution in African Economy. Croom Helm Ltd., London.

31. Bhagavan, M.R. (1979), Zambia: Impact of Industrial Strategy on Regional Imbalance and Social Inequality (Research Report No. 44); The Scandinavian Institute of African Studies, Uppsala.

32. International Labour Office (1981), Basic needs in an Economy under pressure (Zambia). Jobs and skills programme for Africa; Addis Ababa.

33. Jaspa Employment Adversory (January 1977), Narrowing the Gaps (Planning for basic Needs. Productive Employment in Zambia). Job and Skills programme for Africa. Addis Ababa.

34. World Bank (October 14, 1977). Zambia - A Basic Economic Report, Annex 2: The Parastatal Sector.

35. Simwinga, G. K. (1977), Corporate Autonomy and Government Control of State Enterprise in Zambia; (Ph.D.) thesis.

36. Samanta, P.C. (1981) Business Performance, Profitability and Government Control - Study of the working of selected state enterprises in Zambia, (Ph.D. Thesis).

37. Republic of Zambia (October 1979), Third National Development Plan 1979-1983; Office of the President, National Commission for Development Planning, Lusaka.

38. Faber, M.L.D. and Potter, J.G. (1971), Towards Economic Independence, Cambridge University Press, London.

39. Teubal, M. "Heavy and Light Industry in Economic Development" American Economic review 63 No. 4 (September 1973) pp.588-596.

40. Deas, Malcolm, Smith Clifford T, Street John, Economic Development of Latin America, Cambridge University Press, Cambridge.

41. Little, I.M.D. "Import Control and Export in Developing Countries;" Finance and Development Volume 15 No. 3 (September 1979).

42. Tesfachew, T. (1985), "The Development, Growth Potential and Constraints of the Capital-Goods Industry in Zambia", Institute for African Studies, University of Zambia.

43. Seshamani, V. (June 1985), "Some Aspects of the Manufacturing Sector of Zambia", Paper presented at a workshop on "How to increase the share of local inputs for the manufacturing industry in Zambia", Mulungushi Hall, Lusaka, Zambia.

44. World Bank (August 6, 1984), "Zambia Industrial Policy and Performance".

45. UNIDO (February 26, 1985), The Republic of Zambia, Industrial Development Review Series.

46. Lewanika, A.M. (1984), "The Challenges and problems of parastatal industrial resource management and the political economy of national development. The case of Zambia Ceramics." Zambia Journal of Business, volume 3, No. 3, pp.54-62.