AFRICAN INDUSTRIAL DEVELOPMENT – BEYOND IMPASSE: THE CASE OF BOTSWANA, TANZANIA AND ZAMBIA*

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Abstract:

The main objective of this paper is to examine critically the importance, performance and underweighting of the industrial sector in Sub-Saharan Africa focusing on three SADC countries – Botswana, Tanzania and Zambia. Both theoretical and empirical evidence show somewhat unsatisfactory industrial development. The paper finally attempts to explain the way forward (beyond the impasse), by providing alternative approaches, opportunities and recommendations.

1. INTRODUCTION

Industrial development in Sub-Saharan Africa seems to be given less weight than it deserves; yet it is well documented in various literature that industrialisation has several advantages.

The main reason for under-weighting industrialisation stems largely from over-emphasizing the Ricardian law of comparative advantage in favour of the primary sector

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(agriculture and mining) even in the long-term. The current emphasis on international competition and globalization tends to endorse the trend.

No wonder the manufacturing sector contribution to gross domestic product (GDP) in Sub-Saharan Africa has been stagnant at about 17 percent since 1980. In some countries like Botswana, Tanzania and Zambia it has declined. This seems to contradict the conventional industrial development trends (patterns).

The main objective of this paper is to examine critically the importance, performance and underweighting of the industrial sector in the selected SADC countries thereby providing alternative approaches, industrial opportunities and recommendations. The focus is on Botswana, Tanzania and Zambia.

The rest of the paper is organized as follows: Section 2 explains propositions on industrialisation and comparative advantage in Africa. Section 3 examines essentially the industrial performance in Sub-Saharan Africa focusing on the three SADC countries. Alternative approaches, industrial opportunities and recommendations are presented in Section 4. Section 5 provides the conclusion.

2. PROPOSITIONS ON INDUSTRIALISATION AND COMPARATIVE ADVANTAGE IN AFRICA.

Proponents of industrialisation in Africa use propositions which give more weight to industrial development than primary sector development especially in the long run.

Industrialisation is considered to have several advantages. Firstly, diversification away from the primary sector towards manufacturing reduces risks and vulnerability to the long-term deteriorating commodity terms of trade and the associated loss in real income.

Secondly, unlike the primary sector, the industrial sector has more forward and backward linkages with other sectors especially agriculture and mining.

Thirdly, industrialisation contributes significantly to employment creation if the right technique is chosen.

Fourthly, industrialisation has relatively great possibility of technological transfer and adaptation and creation of technology.

In general, industrialisation ensures economic independence in the long run. (Kapunda 2005: 176).

However, as noted in the Introduction Section, indusrialisation in Africa seems to be given less weight than it deserves.

The sources of under-weighting industrialization in Africa are essentially (i) the Ricardian law of comparative advantage; (ii) the unbalanced industrial growth theory in Africa; and (iii) over-emphasis on foreign investment. These sources and their relevant propositions are elaborated hereunder:

(1) The Ricardian law of comparative advantage seems to over-emphasize development of agriculture and mining in Africa at the expense of industrial development even in the long run. This has been the trend since the colonial era. One extreme proponent of the comparative law is quoted to have written:

> "Given Africa's large endowment of land its comparative advantage is inevitably natural resources, and so Africa should forget about manufacturing future. Africa can only keep manufacturing activities alive as "pests" not adding value at world prices and being parasitic on the real economic activities that directly or indirectly pay for their survival".[1]

Nevertheless, African countries have realized the importance of industrialisation and the hidden agenda of proponents of anti-industrialisation in Africa. Immediately after independence many countries including Botswana, Tanzania, and Zambia started with import-substitution strategies to replace imports by manufactured goods domestically essentially in order to meet domestic demand. With the advent of structured adjustment programmes, intensive international competition and globalization many countries have shifted to export-oriented strategy which require production of quality products for exports at low prices. Most countries are finding this to be an inevitable challenge.

At least two negative implications of globalization on industrial development are apparent. First, the resultant free trade encourages availability of relatively cheap imported products like textiles from China which stimulates stiff competition and tends to cripple such industries. Second, the expected reduction or removal of subsidies on important industries for rural poverty alleviation (micro, small and medium industries) and other strategic industries affects their performance negatively.

(2) Unbalanced industrial growth theory underscores the importance of only micro, small and medium industries and consumer good industries (as if this was the end of the road – the *impasse*) at the expense of intermediate and capital goods industries. This is in line with most foreign investors who concentrate on consumer goods which have a relatively short pay-back period – a condition for quick profits. However, intermediate and capital goods industries, though expensive, are strategic in ensuring industrial linkages, intensive use of domestic inputs, and economic independence in the long run.

(3) Over-emphasis on foreign investment is done at the expense of local initiatives, adoption and creation of technology. Practically all African countries use imported technology. It is the responsibility of African countries to learn and adopt such technology and in the long created own technology.

3. INDUSTRIAL PERFORMANCE IN SUB-SAHARAN AFRICA: THE CASE OF BOTSWANA, TANZANIA AND ZAMBIA

3.1 Introduction

From the afore-explained section it is not surprising to learn that the manufacturing contribution to GDP in Sub-Saharan Africa has been stagnant at about 17 percent since 1980. The manufacturing sectoral contribution to GDP has been falling in many African/SADC countries. In Botswana, for example, it has fallen from 5 percent in 1980 to about the current 4 percent. In Tanzania and Zambia it has declined from 9 percent and 18 percent to 8 and 12 percent respectively in the same period. This seems to be contradicting the conventional industrial development trends (patterns). For details see Table 1.

Table 1: **Comparative Structure of Output in Sub-Saharan Africa: Selected Countries**

(percentages)

	Agriculture				**Industry+**				**Manufacturing**			
	1980	**1990**	**2000**	**2004***	**1980**	**1990**	**2000**	**2004***	**1980**	**1990**	**2000**	**2004***
Sub-Saharan Africa	18	18	18	17	39	34	32	32	16	17	17	17
Botswana	11	5	3	3	45	56	45	45	5	5	5	4
Tanzania	52	48	48	46	15	16	14	16	9	9	7	8
Zambia	14	18	17	17	41	45	40	45	18	20	11	12

Notes: + Industry defined broadly to include manufacturing, mining and public utilities.
* Estimates.

Sources: Compiled by the author using data from World Bank (2002, 2001, 1984), United Republic of Tanzania – URT - (2005), Republic of Botswana – RB - (2005).

The details for each country are subsequently presented in sections 3.2 – 3.4.

3.2 THE CASE OF BOTSWANA

Before the advent of globalization the main industrial strategy was import substitution as document in the 1984 Industrial Development Policy for Botswana. That strategy was appropriate at that time for the closed economies of the Southern African region (Republic of Botswana – RB – 1998: 1).

In 1998, however, there was a need to revise the Policy due to increasing intensity of international competition and globalization and the great urge for economic diversification from minerals to the industrial sector among other sectors. The resultant 1998 Industrial Development Policy shifted the strategy to export-oriented industrialisation. This policy is applicable up to now.

Nevertheless, the performance of the industrial sector particularly the manufacturing sector is not very satisfactory. The manufacturing sectoral contribution to GDP has declined to the current 4 percent from 6 percent at independence in 1966 or 5 percent in 1980 as stated before. Even the contribution of the manufacturing sector to total employment or total export is still low (about 10 percent). The manufacturing sector however, grew on average by 5 percent between 1996 and 2004.

The mining sector (mainly diamond) dominates the contribution (36 percent) as shown in Table 2.

Table 2: **Manufacturing Contribution to GDP, Employment and Total Export in Botswana**

(percentage)

Year	**Contribution to GDP**			**Manufacturing Contribution**	
	Manufacturing	**Mining**	**Agriculture**	**Employment**	**Export**
1985	3.2	50.7	5.4	8.5	14.8
1998	4.6	32.1	3.1	9.6	24.0
2000	4.1	36.5	2.7	11.2	10.7
2001	4.0	34.7	2.6	11.0	10.0
2002	3.9	35.9	2.4	10.6	9.5
2003	3.7	34.7	2.5	10.6	9.0
2004*	4.0	36.0	2.5	10.7	10.0

Note: * Estimate
Sources: Calculated by the author using Botswana Central Statistical Office (CSO) data.

Although the mining sector contribution to total export has increased from 76 percent in 1998 to the current 90 percent Botswana still maintains the policy of economic diversification away from mining due to the future risk and uncertainty of the mining sector. The industrial sector is still regarded as central to economic diversification despite its challenges and problems.

It is, however, now clear that the industrial sector alone cannot ensure economic diversification. Other sectors should also be actively involved. Regarding employment, for instance, the manufacturing sector alone cannot be considered a panacea for Botswana's unemployment problem. In fact it is the service sector, because of its labour intensity, that can address the unemployment problem more effectively.

Regarding the impact of globalization on industrial development Botswana faces stiff competition with more industrialized economies of South Africa, Europe, North America and others because of the intensity of free trade promoted by WTO, SADC, SACU and other organizations and trade agreements.

The current flood of imported cheap products especially textile from East Asia tends to be a great challenge of the industrial development.

Liberalisation and globalization have started giving pressure on the government to reduce direct subsidies for the micro, small and medium enterprises and other industries to conform to international organization such as WTO to which Botswana is a signatory member. Micro, small and medium enterprises are important in Botswana as they contribute 30 – 40 percent to GDP. Furthermore about 50 percent of formal employment is estimated to arise from these enterprises.[2]

Possible future removal of preferential treatment for Botswana beef due to globalization forces is likely to lead to fall in beef prices; hence result to an adverse impact to the rural population which depends heavily on livestock.

3.3 THE CASE OF TANZANIA

After independence in 1961 Tanzania embarked on industrialization centred on import-substitution strategy. In 1967 the Arusha Declaration was used to nationalize the major means of production. Like Botswana, with the advent of intensive international trade and globalization export-oriented strategy was adopted. In 2003 Tanzania came up with a National Trade Policy for competitive and export-lead growth. However, the country faces stiff competition within the two communities – East Africa Community (EAC) and Southern Africa Development Community (SADC) – and outside the communities.

Regarding industrial performance as noted earlier the manufacturing sector contribution fell slightly from 9 percent in 1980 to 8 percent in 2004. For details see Table 3.

Table 3: **Manufacturing Contribution to GDP and Total Export and Employment growth in Tanzania**

(percentage)

	Contribution to GDP			**Manufacturing Sector**	
Year	**Manufacturing**	**Agriculture**	**Mining**	**Employment (Growth Rates)**	**Exports/GDP**
1985	9.1	50.0	1.5	1.8	10.7
1998	8.4	49.1	2.0	5.5	6.1
2000	8.3	48.1	2.3	6.5	6.5
2001	8.3	48.0	2.5	6.0	7.2
2002	8.4	47.5	2.7	10.3	7.3
2003	8.6	46.7	3.0	8.0	6.8
2004	8.4	46.4	3.2	-	7.2

Source: Calculated by the author using URT (2005) data.

Industrial contribution to total export declined from about 11 percent in 1986 to 7 percent in 2004. However, recent real growth rates of the manufacturing sector are impressive. The growth rate increased from 4.8 in 2000 to 8.6 in 2004. The recent increase in production has been mainly a result of the rehabilitation of divested/privatized enterprises, establishment of new industries, and improvement in the supply of electricity and water. Industrial employment has been higher than before largely as a result of increase of private and informal enterprises especially the small and medium enterprises. About a third of GDP come from the small and medium enterprise in Tanzania.[3]

The positive globalization impact seem to have contributed to the recent impressive trends. First, a few industrial products have improved their market competitiveness. Products with remarkable sales performance include beer, cigarettes, soft drinks, bottled water, tyres and textile. The increase in sales is mainly to increase in quality, efficient distribution system and rigorous promotion and advertisement.

Secondly joint-ventures and privatization have also contributed positively in some cases like beer.

Thirdly, positive impact on small industrial enterprises have also contributed to the remarkable recent trends. These include import liberalization on the supply of inputs and spare parts and domestic trade liberalization.

However, the negative implications of globalization if not addressed well may the blur the future performance of the industrial sector. These include, as on the case of Botswana, flood of imported cheap products especially used textiles (*mitumba*) and closure of some small plants even large ones which cannot produce high quality product at minimum production costs so that they can sell them at competitive by low prices.

3.4 THE CASE OF ZAMBIA

At independence in 1964 the economy of Zambia was dominated by the mineral sector. In 1965 mining accounted for about 40 percent of GDP. Industries beyond those related to the mining were few and concentrated in the Copperbelt Region and along the main railway line (World Bank 1993).

Like Tanzania, Zambia in 1968 employed interventionist policies which partly led to the nationalization of its main industries and amalgamation of most of non-financial institutions to form parastatals through the Mulungushi Declaration.[4] During this time state-lead import-substituting industrialisation was the industrial policy (Kalima 2001: 4).

With the advent of structural adjustment programmes in 1985 and subsequent intensive international competition and globalization the industrial policy became more open.

Regarding the performance of manufacturing sector relative to other sectors Table 4 show the sectoral contribution to GDP.

Table 4: **Manufacturing Contribution to GDP Relative to Other Sectors in Zambia**

Year	Manufacturing	Agriculture	Mining	Services
1980	18	14	20	44
1985	23	13	16	45
1990	32	18	9	37
2000	11	17	9	57
2004*	12	18	8	55

Note: *Estimate.
Source: Calculated by the author using data from various World Bank Development Reports.

It is apparent the industrial sector contribution to GDP dropped from 18 percent about 12 percent in 2004. The share of the mining sector in GDP has also declining substantially in the same period.

4. ALTERNATIVE APPROACHED, OPPORTUNITIES AND RECOMMENDATIONS

To begin with the law of comparative advantage should not be misinterpreted or overused to slow or discourage industrialisation in Africa. This should also apply to the current international competition and globalization.

Secondly the positive aspects of international competition and globalization should be used to encourage industrialisation. With stiff competition the manufacturing and other sectors in Africa should be more cost conscious than ever before. Similarly they have to be quality conscious thereby improve efficiency, productivity and profitability. The industrial sector should also take advantage of international trade opportunities such as the African Growth and Opportunity Act (AGOA) and other favourable agreements. Furthermore, since globalization is expected to reduce technological and other traditional problems of the industrial and other sectors through technical and financial aid from international economic institutions as per WTO negotiations Africa should take advantage of the implied opportunity.

Thirdly, African governments should guide the free market forces. The current increasing intensity of free trade and globalization may be misused by profit-seekers and monopolists against industrial development and consumers if the visible hands of governments not intervene through competition policies and other mechanisms to ensure fair competition. Government should continue to support medium enterprise with a view to gradually decrease the support once the business has taken-off to sustainability. This also applies to infant industries, as noted in the paper small and medium industries are important in contributing to GDP and employment especially in rural areas where the majority of the poor live in African economies like Botswana, Tanzania and Zambia. These enterprises should also increase productivity and produce quality products and minimize costs. They may compete indirectly through niche marketing by identifying segments of markets which they can serve better than large firms. They may try to promote export to markets not tapped by global investors such as exporting African crafts and labour intensive products to USA, Europe and other parts of the world.

Governments should also play a leading role in developing large strategic industries especially intermediate and capital good industries which are not given priorities by private investors due to their long pay-back periods. Governments should encourage foreign investors to invest in such industries by providing effective investment incentives such as long tax payment holidays or even embarking on joint ventures with them. (Kapunda 2004: 15).

Government should also provide incentive to Africans who excel in innovations and technological performance.

Lastly the three countries, Botswana, Tanzania and Zambia and other SADC countries should take advantage of the industrial and other benefits of integration such as having common industrial strategies, trade agreements and common markets. This also may apply to other regional co-operation and organizations in West Africa and other parts of Africa.

5. **CONCLUSION**

The thrust of this paper was to examine critically the importance, performance and underweighting of the industrial sector in selected SADC countries, thereby providing alternative approaches, industrial opportunities and recommendations. The paper started with a theoretical arguments explaining why industrial development is approaching stagnation despite its expected importance. This was followed by empirical illustration in Sub-Saharan Africa and the three selected countries. An attempt to explain how to go beyond the *impasse* was finally made.

End Notes:

1. Woods, A. and K. Berge (1977) quoted in Collier (1999).
2. For details see Kapunda (2005).
3. ibid.
4. The 1968 Mulungushi Declaration is comparable to the 1967 Arusha Declaration in Tanzania which was used to nationalize the means of production.

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