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Sustainable and Inclusive Growth in Africa: Industrialization a Must

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Abstract

This article builds a case for the imperative of boosting the manufacturing sector as the surest way of tackling Africa's development challenges of fragile economic growth, poverty, inequality and vulnerability to socio-economic shocks. In doing so, the article firstly analyses the critical role manufacturing sector plays in a country's socio-economic development. Secondly, it assesses the status of the sector in Africa by gauging its growth rate, over time, and its contribution to GDP. Thirdly, it identifies the factors which have undermined the growth of the sector. Fourthly, it draws an agenda for revival and boosting of the manufacturing sector, while avoiding the mistakes of the past industrialization episodes. Finally, some policy and strategic recommendations are drawn to guide the next generation of a manufacturing-led development paradigm by putting emphasis on the imperative of forging strong partnerships between the private and public sector.

Key words: Industrialization, inclusive growth, Africa, Manufacturing,

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1.0 Introduction

Africa's economic performance in the last fifteen years has been characterized as "impressive" due to enhanced real GDP and per capita GDP growth. This positive growth has been due in part to the rise of emerging economies, whose demand for raw materials represents a major opportunity for resource-rich African countries. This economic dynamism was complemented by improved environment of macroeconomic stability, implementation of structural reforms and improved governance. The improved investment climate spearheaded by reforms in the policy, legal and regulatory framework, attracted foreign direct investment (FDI) into the continent.

However, the seemingly positive growth outlook has not translated into less inequality, reduced poverty, and improved diversity of the economies, job creation, structural transformation and technological upgrading. These negative aspects of Africa's growth performance are a clear testimony to the absence of an essential component of structural transformation in the continent's socio-economic development strategy namely industrialization. It has long been recognized that industrialization is one of the main engines of economic growth, especially in the early stages of development. Its essential characteristics include: Firstly, an increase in the proportion of the national income derived from manufacturing activities and from secondary industry in general, except perhaps for cyclical interruptions. Secondly, a rising trend in the proportion of working population engaged in manufacturing. Thirdly, an associated increase in the income per head of the population (Bagchi, 1990). It needs to be emphasized that few countries have been economically successful without industrializing. Only in circumstances such as extraordinary abundance of natural resources or land have countries been able to do so (UNIDO, 2009). However, even in the latter case, it all depends on how effectively the resources are managed to avoid the resource-curse and the dutch-disease (Moshi, 2014).

The article aims at building a case for the imperative of boosting the manufacturing sector as the surest way of tackling Africa's development challenges of fragile economic growth, poverty, inequality and vulnerability to socio-economic shocks. Firstly, the article analyses the critical role that manufacturing sector plays in a country's socio-economic development. Emphasis is placed on the fact that the sector is the most dynamic one in terms of employment creation, enhancement of technological capacity and incomes, just to mention a few. Secondly, it assesses the status of the sector in Africa by gauging its growth rate, over time, and its contribution to GDP. Thirdly, it identifies the factors which have undermined the growth of the sector. Such factors include: the role played by policies merchandised by the IFIs, in the context of the neo-liberal development paradigm, with its attendant policy and financial dependence on donors, coupled with unrealistic conditions. Fourth, it draws an agenda for revival and boosting of the manufacturing sector, while avoiding the mistakes of the past industrialization episodes. Some components of the agenda encompass; an enhanced role of the state, strengthened capacity of the private sector and home grown policies and strategies with a view to scale-up ownership of the continent's development agenda. Finally, some policy and strategic recommendations are drawn to guide the next generation of a manufacturing-led development paradigm by putting emphasis on the imperative of forging strong partnerships between the private and public sector.

2.0 Conceptual Framework

This section focuses on theoretical considerations with regard to two aspects. One, is in relation to structural transformation of which industrialization is seen as a critical component of that process. Two, is technological upgrading and innovation, which are essential ingredients for long-run productivity growth, again critical inputs and outputs of an industrialization process.

We should point out from the outset that, since 1950, all developing countries that have experienced rapid growth and catch up have been successful industrialisers and industrial exporters (Van Ark and Timmer, 2003). Countries that fell behind in aggregate terms were also the weakest industrial performers. In the past fifty years, manufacturing had been the main engine of growth in developing countries. In other words, the structural change involved the shifts from agriculture to industry has been a key ingredient of successful economic development (Szirmai, 2008).

In the context of structural change, Lin (2012) argues that globalization provides an almost infinite potential for industrialization in many low-income countries. He contends that whereas economic growth based on exploitation of natural resources or agricultural land eventually faces the constraint of shortages of quantity, development strategy based on producing manufacturing goods for global market benefits from economies of scale due to increasingly lower unit costs of production. This being the case, virtually any country can identify products for which it has overt or latent comparative advantage and scale it up almost without limit thereby creating its own niche in the world market.

Notwithstanding the importance of industrialization and its role in structural transformation, mainstream development economics has paid only limited attention to this subject. This may be explained mainly by failure of industrial policies in developing countries during the 1960s and 1970s and the theoretical argument of “state – failure” with regard to pursuing policies that tend to create unsustainable and socially costly distortions in the economy. Although this view has been challenged by those who associate the successful industrialization in East Asia with the actively pursued industrial policies, widespread skepticism about industrial policies endures (Parc and Saggi, 2006).

It needs however to be emphasized that establishing empirical regularities of the changing patterns of industrial structure and technological upgrading across the world is not a straightforward exercise. However, what is not contestable is the fact that industrialization has been a key feature by which successful developing economies have lifted themselves out of poverty.

A second aspect of structural transformation is technological upgrading and innovation, which are essential ingredients for long-run productivity growth. In low-income countries where budgets for research and development are scarce and industries located far away from technological frontier, technological upgrading and innovation typically take the form of adaptation and adoption of known technologies rather than introduction of new ones-(Lin,

op.cit.). However, effective adaptation and diffusion are dependent on absorptive capacities of firms and countries (Abramovitz, 1989; Lundvall, 1992). Nonetheless, observed patterns of technological adoption, education, and R & D strategies indicate that appropriate innovation strategies depend on endowment structure and stages of development.

Another important aspect associated with structural transformation is that of economic diversification. Not only it protects countries from vulnerability to shocks, it also reflects the pace at which low income economies reallocate their resources to take advantage of unfolding opportunities. While high-income countries tend to exhibit substantial convergence in productivity levels across sectors, the situation is generally the opposite in low-income countries. Therefore, structural change is both a cause and consequence of sustained economic growth (Chenery, 1986).

3.0 Africa's Industrialization Status

After fifty years of independence agriculture remains Africa's main source of employment and livelihood with around 60 percent of its labour force employed in the sector. But its share in GDP is much smaller accounting for an average of 25 percent, indicating its relatively low level of productivity. On the contrary, the continent's manufacturing sector is relatively small with an average contribution of only 10 per cent to GDP. However, the degree of industrialization differs significantly across countries and depends, among other factors, on the stage of development and the availability of natural resources. Countries with low per capita income levels and those with abundant resource wealth tend to have very small manufacturing sectors, often around 5 per cent of GDP or less. (AfDB, 2013).

The emerging picture of performance of the above key sectors which are supposed to be the focus and the drivers of transformation process is that of a continent experiencing very little structural change through industrialization. In the ensuing sub-sections, we analyse more deeply the performance.

3.1 Trends of Structural Change

It has been alluded to in the preceding section that African economies exhibit signs of limited structural transformation. No wonder that even the overall GDP growth rates have been low by either Asian or BRICs standards. In 1965, agriculture value added represented 22 per cent of SSA's GDP, services 47 percent and industry 31 percent (of which manufacturing contributed 17.5 per cent). In 2007, it was estimated that agricultural value-added still contributed a healthy 15 per cent of GDP while services contribute 52 per cent and industry 33 per cent (of which manufacturing accounted for 15 per cent). In terms of employment, things have not changed much either: African economies were overwhelmingly rural in 1960, with agriculture accounting for 85 per cent of the labour force. While the rural share of the population has fallen steadily over the past four decades, in 2000 it was still, at 63 per cent, slightly above the 1960 average for non-SSA developing countries (Lin, op.cit.)

A closer look at the above trends shows that, over time, the contribution of manufacturing to GDP has been decreasing; an indication of de-industrialization. According to UNIDO (2009), Africa's share of global manufacturing production (excluding South Africa) fell from 0.4 per cent in 1980 to 0.3 per cent in 2005 and its share of world manufactured exports from 0.3 per cent to 0.2 per cent. Table 1 compares selected indicators of industrial development for Africa and all developing countries in 2005. The share of manufacturing in GDP is about one third of the average for developing countries and in contrast with developing countries as a whole, it is declining. Per capita manufactured output and exports are less than 20 and 10 per cent of developing country average, respectively. The report notes further that the region has low levels of manufactured exports in total exports and of medium-and high technology goods in manufactured exports. Indeed, these measures have changed little since the 1990s (UNIDO, 2009).

Table 1: Selected Indicators of Industrial Development, 2005

	Mfg exports p.c (US\$)	Growth p.c. mfg exports 2000-2005 (%)	Share exports total (%)	mfg in tech.in mfg (%)	Share medium-high total exports (%)	Mfg value added 2005 (US\$)	Share of mfg in GDP 2005 (%)	Change in mfg share of GDP 2000- 2005
Africa average	39.0	1.65	54.9		13.3	63.6	07.6	-
Developing countries	487.2	10.05	75.8		57.3	372.9	21.7	+

Source: UNIDO (2009) and Page (2009).

The decline in Africa's, manufacturing base has been accompanied by a decline in diversity of the regions manufacturing sectors and a fall in sophistication of the products produced. In this regard, the manufacturing sector produced narrower range of less sophisticated products in the 1990s than in the 1980s in sixteen of the eighteen African economies for which production data existed. Page (ibid.) argues that, the fall in manufacturing sophistication was especially sharp in some of the region's early industrializers – Ghana, Kenya, Tanzania and Zambia. The trend towards narrowness and less sophistication is a clear indication of Africa's marginalization in the world trade due to decreasing competitiveness, indicative of less presence in domestic and international markets and failure to develop industrial structures in sectors and activities with higher value addition and technological content (UNIDO, 2012).

Another indicator which depicts the low level of structural change is that of intra-African exports and imports. The period between 2000 and 2010 shows that trade within Africa represented about 12 per cent of the continent's total trade in 2010, while major part of trade (88 per percent) was with the rest of the world. During the observation period, the average level of intra-African trade, though fluctuating, has consistently remained under 15 per cent over the past decade. Again, whereas intra-African exports and imports have had an upward trend, the overall trend has been quite modest, oscillating around 10.6 per cent (2000) and 11.7 per cent in 2010 (ECA, 2013).

The low levels of intra-continental trade are indicative of limited diversification of African economies-reflecting high dependence on production of primary commodities which in most cases are similar across countries. Perhaps it is important to emphasize that whenever there is increase in intra-African trade, such an increase was triggered by trade in manufacturing. This observation points to the fact that the boosting of intra-African trade would largely be a factor of enhanced industrialization process.

We conclude this section by analyzing the position of Africa manufactured exports in relation to world's merchandize exports. In reference to table 2, one observes that in 1983 less than 10 per cent of exports from SSA (excluding South Africa) were manufactured goods. Since 2000, the figure was still below 10 per cent falling to 7.8 per cent in 2003. This level was lower than the case was in 1965 when manufactured exports were around 8.0 per cent of total exports (World Bank, 1989). Even the 9.5 per cent figure in 2005 exaggerates the participation of SSA in manufactured exports. If Mauritius and Botswana are excluded, the figure drops to a mere 5.9 per cent.

Table 2: SSA Exports, Mfg Exports and SSA/World Trade

	Merch Exports	Manuf.Exports	Percent	World Merch Exports	SSA/World
1980	52715			1,997,905	2.6
1990	45738	3899	8.5	3,475,109	1.3
1998	46469	5358	11.5	5,503,777	0.8
2000	65606	6318	9.6	6,446,307	1.0
2001	62902	5380	8.6	6,185,332	1.0
2002	65462	5223	8.0	6,480,740	1.0
2003	82833	6522	7.8	7,545,646	1.1
2004	97837	8696	8.9	9,202,77	1.1
2005	137869	13129	9.5	10,433,970	1.3

Source: Ajakaiye and Stein, 2007

This low levels of exports show how marginalized African trade has become while other regions moved to less resource intensive production with heavier emphasis on information technology (IT) and intellectual capital. Further, the rapid increase of manufactured exports by East Asian and Pacific countries have further eroded the share of SSA to the world trade (Ajakaiye and Stein, 2007).

3.2 The State of Technological Development

To the extent that there are strong linkages between manufacturing and technological development, we attempt to discuss in this section the state of technological content in the manufacturing activity. Studies show that SSA is lagging not just in terms of volume but also in terms of technological content in its manufacturing. It is claimed that in certain largely traditional activities, it is possible to remain competitive with unskilled cheap labour and by processing natural resources. However, this base is eroding steadily. In almost all industrial

activities, competitiveness involves technological changes, new organizational methods, flexible response, greater networking, and closely integrated production systems across firms and regions. This new competition requires better technological capability in every country, regardless of resource base and location—even in countries that are not at the frontiers of innovation (UNCTAD, 2003).

According to Lall and Wangwe (1998), African manufacturing does not show many signs of such upgrading. Its structure remains dominated by low-level processing of national resources and the manufacture of simple consumer goods aimed at domestic market. There are few supply linkages between large and small enterprises. Productivity growth is poor. Capacity utilization has fallen below its peak of many years ago; a significant part of the recent growth comes from utilizing capacity, rather than building new capacity. Technological efficiency is relatively low, with little sign of technological dynamism or innovation. This state of affairs is shared by other studies (Biggs, Shah and Srivastava, 1995) by insisting that African firms are well below international “best-practice” technical levels and below levels reached by other developing countries.

The above cited studies clearly indicate that SSA has the lowest share for high technology, and the highest for resource-based manufacturing. This being the case, Africa has yet to break away from the tradition of exporting unprocessed materials, which is not only the slowest – growing segment of world trade, but also the least stimulating in terms of structural entrepreneurial, skill and technology growth. Given that the structure of Africa’s production is underpinned by a low level of technological development, one can with confidence claim that the continent’s technological gap, and the attendant low industrialization, has greatly inhibited the structural transformation process.

The technological gap in Africa is not only characterized by a low tertiary-level enrolment in technical subjects but also a low level of expenditures in research and development (R & D). For example, whereas Africa has a total of about 70,000 engineers, South Korea has a corresponding figure of 577,000; the world’s highest proportion of population enrolled in engineering and other technical subjects. Furthermore, whereas industrialized market economies spend about 2 per cent of their GNP on R & D, Africa’s share is around 0.3 per cent of GNP (UNCTAD, op.cit.).

To the extent that the picture of Africa’s technological development is gloomy, characterized by a weak skill base, poorly developed research and innovation infrastructure, and little mastery of simple technologies, one could conclude that the cutting edge of industrial dynamism and competitiveness is conspicuously missing in Africa’s socio-development process.

4.0 Factors Undermining Africa’s Industrialization

There are a number of factors which have been identified, by a number of studies, that have contributed to the poor performance of the industrial sector in the continent. Such factors range from political and ethnic conflicts, natural disasters, external market shocks, debt, poor macroeconomic management, to inadequate infrastructure. Others are due to poor economic

condition, disillusionment with past strategies, rent-seeking, political interference, limited managerial and technological capabilities (UNCTAD, op.cit).

Although these factors, in one way or another, did impact negatively on the development of the sector, we are however of the opinion that the adopted development paradigm, during the structural adjust programme (SAPs) and beyond, was the major stumbling block. This is because the adopted paradigm had inherently misconceived assumptions on inclusive and sustainable development. The ensuing sub- sections will elaborate on these assumptions.

4.1.1 Neo-Liberalism Paradigm

The rise of neo-liberalism in Africa was closely associated with the fiscal and debt stock crises which governments, both in developed and developing countries, were facing in the 1980s. This development triggered the emergence of a new paradigm which emphasized the virtues of a small government; laissez-faire policies and international openness. The main drivers of this paradigm change were basically two. Firstly, conceptual developments that advocated for minimal role of the state. Secondly, the emergence of political leadership in countries like USA, UK and Germany (President Reagan, Prime Minister Thatcher and Chancellor Helmut Kohl respectively) who championed the adoption of the idea of minimalist state intervention in the economy.

It is in the context of the evolution of global development paradigms, coupled with the socio-economic crisis of the early 1980s, that Africa had to embrace policy reforms in a neo-liberal direction. These reforms, in turn, were spearheaded by the World Bank and IMF. These actors, through their financial and institutional resources have since then, been able to establish hegemony in knowledge production and dissemination and thereby attempt to establish hegemony in global and regional policy-making. The actors, coupled with many research organizations, think tanks and academic institutions tend to operate as a giant “knowledge monopoly”; edging out competition from alternative perspectives, analysis or ideas (Guttal, 2007). This “monopoly” notwithstanding, there is an influential body of literature emerging, which implicitly or explicitly dismisses development as a process towards idealized Western Model. Indeed, China’s growth record over the last 30 years and that of other East and South Asian countries are manifestations of existence of alternative development models different from those championed by the seemingly monopolizers of knowledge.

The adoption of neo-liberalism in Africa and the subsequent active role of multilateral institutions through policy and finances, led to loss of policy space, necessary for charting-out a development path which is consistent with the demands of a sustainable and inclusive development. This loss of policy or constrained space was achieved through two main channels. First, the lack of feasible alternatives (including sources of finance) that have led much African government to accepted a “forced consensus”, especially on macroeconomic policies. Second, the gradual conversion of many African technocrats and leaders to the ideology of the Washington Consensus (WC) and Augmented Washington Consensus (AWC) both in rhetoric and action (Shafaeddin, 2006).

4.1.2 The Role of State

The neo-liberal model advocates for a minimalist state. This stance was informed by the hypothesis that government failure was worse than market failure, thus challenging the original justification for the expansion of government beyond its night-watchman role and into the role of development entrepreneur. Based on the Research Department of the World Bank, this doctrine animated a policy programme of minimizing the role of the state in development and “getting prices right”. No longer was it a matter of governments selecting their industrial investments with the correct shadow prices. Governments were now adjured to divest themselves of state industries and to liberalize comprehensively in goods markets, labour markets, financial markets, capital markets and foreign-trade markets. This view became codified in what was called the Washington Consensus (Toye, 2003).

This doctrine seems to be misleading over the role of state in any economy. The historical development of countries indicates that governments have played a critical role in reducing poverty and accelerating growth through policy-making, investing and showing the way (pace maker). Indeed, evidence from the East Asian countries, which have been able to attain sustainable and inclusive development, the story is about governments and businesses coordinating to secure high investment, high saving and re-investment and rapid growth of competitive exports in a joint strategy of national growth (ibid.cit).

According to Chang (2009), the dominant neo-liberal view on the role of state in economic development suffers from a host of problems. One, it is based on a very biased reading of history of capitalism and globalization. Two, it portrays tension between its two key components – neo-classical economists and liberastarian-Austrian political philosophy. Three, it fails to acknowledge that the interventionist period of the third quarter of the twentieth century was not a period of stagnation and inefficiency, as claimed by neoliberals, but saw the world economy performing better than during the liberal regimes that preceded and followed it.

For over two decades, Africa’s policy makers and politicians had to embrace the narrow view of the role of state, despite its misconceptions and omissions, with its attendant negative impacts on the continent. It is only recently that Africa’s policy makers have started to build a case for “the need for a development state”. In this context, the primary goal of the African developmental state has been identified as “to overcome the continent’s inherent development challenges focusing on high and sustainable economic growth rates through diversification and transformation” (ECA, 2011). The revisiting of the role of state in the current development paradigm, although belated and long overdue, is a commendable move. However, we cast our doubt on its implementation, given the continued dependence on the multilateral institutions.

4.1.3 Addiction to Growth

The policies and the programmes adopted so far have placed a lot of emphasis on growth while downgrading other critical indicators of development. The over-emphasis on growth was meant to show that the reforms have been working and therefore whoever was championing the reforms did “a good job”. It is an undeniable fact that Africa has experienced growth acceleration in the 1990s and beyond. However, the growth acceleration does not deserve what others have branded

as “impressive growth”. This is because on a deeper look, the performance of record of African economies has been profoundly unsettling. First, non-African growth consistently outpaced African growth after 1960, with the result that Sub-Saharan real incomes fell by over 35 percent relative to incomes in other developing regions and by-nearly half relative to industrial countries. Two, human development gaps widened rather than narrowed overtime and Africa’s cumulative progress was insufficient by 2000, to reach the levels of human development the rest of the developing world had already attained in 1960. Three, at the turn of the millennium, nearly half of SAA population fall below an income poverty line of USD 1.5 per day up from 35 percent in 1970 (Ndulu and O’Connell, op.cit.).

The above mentioned indicators, side-by-side with the so called “impressive growth”, are, in most cases, down played when reporting on Africa’s socio-economic performance. This is to argue that issues critical to Africa’s long-term development have not been accorded the right emphasis because of the narrowness and short-term horizon of the neo-liberalism models. Indeed, the undue emphasis placed on growth has delayed actions on those issues that are critical for sustainable and inclusive development. These range from issues of inequality, structural transformation, agricultural and industrial development, and scaling down vulnerability.

The key message here is that growth which does not bring about a structural change is unlikely to be sustainable. Likewise, growth which does not narrow the inequalities across countries, regions, urban and rural areas cannot be inclusive. We conclude this section by making two remarks. Firstly, although growth is necessary for poverty reduction, it is not a sufficient condition for inclusive growth. Secondly, the assumption that the effects of policies on economic growth are independent of a country’s structural as well as institutional features is untenable.

4.1.4 Industrial Policy Debate

In line with the minimalist state doctrine, neo-liberals are against state intervention in support of industrial transformation with the arguments that state measures are likely to worsen not improve the operation of markets. According to Ajakaiye, *et.al.* (2007) the strong anti-industrial policy sentiment which has been embedded in the strategies of the World Bank since the early 1980s, has had the greatest influence in Africa over the past 25 years. The rationale was clearly laid out in the watershed World Development Report of 1983. The report lays out a series of reasons for rejecting state support for industry. We are not interested at this juncture to enumerate them. It suffices to emphasize that the World Bank continued with the rejection over the 1980s and 1990s, even after it had conducted a study to investigate the role of industrial policy in East Asian Miracle countries. In that study, it was found out that the instrument of industrial was broadly used by the countries in question.

By the late 1990s, with the growing literature on impediments to industrialization due to market failures (Chang, 2003) the Bank began to admit that there might be a rationale for industrial policy intervention. Nonetheless, the Bank continued to show its dislike for the instrument and therefore Africa had to live with it. We would like to echo the point that the market-driven reforms, which have been undertaken in Africa and have committed countries to free trade, and prohibiting industry related policies are currently being undermined by their own theoretical

foundations. Many of the underlying assumptions about market failure which motivated industrial policies of the 1960s and were subsequently dismissed as irrelevant in the 1980 have made an astounding comeback in economic development theory. In addition, new approaches to technical change and innovation have generated a huge literature documenting how market forces will not produce optimal results and that some kind of state intervention is necessary to promote industrialization (Shapiro, 2007). It is therefore argued that, “a program that encourages industrialization can substantially boost income and welfare” (ibid; 54).

The resistance by the neo-liberals to industrial policy is neither tenable in economic development history nor informed by a coherent theoretical framework. The long run histories of the now developed countries and the newly developed countries clearly show that an accelerated rate of structural change is one of the key features of modern economic development (Kuznets, 1966 and Chenery 1979). Therefore, the rise in the share of manufacturing in GDP is one of the most firmly established historical patterns together with an even more steeply declining share of primary production.

Furthermore, experience from East and South Asian countries shows that the structure of the economy changed rapidly towards a strong specialization in non-agriculture in recent decades. The evolving sectoral patterns of growth did matter, significantly, for inclusive growth and poverty reduction (Palanivel and Gul Unal, op.cit.).

These experiences are supportive of the fact that industrial policy is an indispensable process of strategic collaboration between the private and public sectors, where the objectives are to identify the constraining factors and the challenges and to design a set of policies to address them. In other words, industrial policy is a stimulant for mobilization of investment and promotion of entrepreneurship (Rodrik, 2007).

It is widely acknowledged that Sub-Saharan countries display high agricultural shares in GDP and employment averaging 34 and 64 percent respectively, World Bank (2008). Further, the large share of agriculture in these countries suggests that strong growth in the sector is critical for fostering overall economic growth. Furthermore, agriculture contributes to shaping the environmental sustainability of the growth process, across the development spectrum. This is because it is a major user of scarce resources (water and land) and provider of environmental services (sequestering carbon, managing watersheds, and reducing deforestation).

Despite the sector’s central role in unleashing sustainable and inclusive growth, agricultural and rural sectors have suffered from neglect and underinvestment over the past 25 years, a period which falls well within the implementation of the neo-liberal model. The neglect is not only by governments but also by donors. In this regard, public spending for farming has been oscillating around 4 percent of total government spending. The under-funding of agriculture has resulted in unsatisfactory performance of the sector in Africa, especially when contrasted with the green revolution in Asian economies. Whereas in the Mid-1980s cereal yields were comparably low and poverty was comparably high, fifteen years later yields in South Asia had increased by more

than 50 per cent and poverty had declined by 30 percent. On the contrary, yields and poverty in Sub-Saharan Africa remained unchanged and food insecurity worsened (World Bank, *ibid*).

Indeed, “poverty reduction” was not one of the Washington Consensus. However, the doctrine had it that, a small state would be good for growth and growth would be good for poverty reduction. Also because poverty is more severe in rural areas and state intervention, regulations and organizations disadvantage agriculturalists and advantaged industrialists, a minimalist state would tend to reduce the inequality of distribution of income and wealth. The manifesto of the counter-revolution in development was not simply about greater efficiency but also a promoter of poverty reduction through growth and equity as well (Toye, *op.cit.*).

Based on the doctrine, what we see in Africa today is low productivity in agriculture, widening gap between urban and rural areas, and environmental degradation. This is a manifestation of the fact that the economic growth which the continent has been experiencing in the 1990s and 2000s has been exclusive and not inclusive. The main argument here is that the pattern of growth was biased to the extent that it was not poverty reducing. Therefore, if what matters is the pattern of growth for poverty reduction, then the sectoral growth rate in which the poor are employed becomes more important than the overall growth rate (Revallion, 2004). This suggests that a dynamic rural sector based on improved agricultural productivity could have promoted faster rural poverty reduction and thereby inclusive growth.

Christiaense, Demary and Kuhl (2010) show that growth in agricultural sector is up to 3.2 times more effective in reducing one dollar a day poverty when compared to growth in non-agriculture. This is not surprising given agriculture utilizes poor people’s key assets namely land and labour, and creates economic opportunities in rural areas where majority of the poor live. The apparent attention currently being devoted to agriculture development, by the international community, has been propelled by the global food crisis rather than geared towards structural transformation and productivity enhancement in Africa. Experience shows that unless a crisis has attained a global dimension, it hardly gets the attention of the international community (Moshi, 2012).

4.2 The Neglect of Agriculture

The literature on development economics underscores the importance of industrialization in a country’s development. Industrialization is considered as an essential component of structural transformation. Therefore, it has long been recognized as one of the main engines of economic growth, especially in the early stages of development. According to Lin (2012) its essential characteristics include: (i) an increase in the proportion of the national income derived from manufacturing activities and from secondary industry in general, except for cyclical interruptions (ii) a rising trend in the proportion of working population engaged in manufacturing and (iii) an associated increase in the income per head of the population (UNIDO (2009) points out that only a few countries have been economically successful without industrializing.

Despite its importance, mainstream development economics has paid only limited attention to industrialization and its role in structural transformation in recent decades. This may be explained primarily by the failure of industrial policies in some developing countries, and the

neo-liberal argument that the state cannot do better than the private sector in identifying the new industries. The skepticism about industrial policies, notwithstanding, industrialization has been a key feature of successful Asian economies, lifting themselves out of poverty. On the contrary and engulfed in the skepticism, Africa remains one of the most “de-industrialized” continents in the world.

The logic underpinned by neo-liberalism had it that import liberalization, devaluation, the reduction of protectionism and positive real interest rates will punish inefficient industries and reward the efficient ones, which are export-oriented, more labour intensive and use more local materials, allowing the country to exploit its comparative advantage. The result will be a prosperous and growing sector, which will greatly contribute to an increase in exports while using fewer imports. Embracing this logic has seen Africa’s marginalization in the context of globalization, increased and delayed the diversification of its economies.

The slow growth of the sector has resulted not only in poor linkages with agriculture, low technological capabilities, but also poor provider of employment opportunities especially for skilled labour. Therefore, the fact that the manufacturing sector failed (unable) to play its rightful role in the African economies, the ultimate goal of sustainable and inclusive growth was not achieved.

5.0 Industrialization: An Imperative

Having analyzed the status of industrialization in Africa, as well as the factors inhibiting its effective adoption and implementation, we now attempt to build a case why industrialization and technological upgrading are a must, if the continent were to attain higher rates of growth which are both inclusive and sustainable. We present two arguments to support the imperative for industrialization. One, there is broad consensus that no country or region in the world has achieved prosperity and a decent socio-economic life for its citizens without the development of a robust industrial sector. Two, there exists abundance potential, in terms of resources, to trigger cum support the process of meaningful industrialization in Africa.

5.1 Centrality of Industrialization

Africa’s continued marginalization from industrial production and trade can only be effectively reversed by fostering industrialization, a key driver of structural change. This realization should be a wakeup call for the continent’s policymakers and politicians. Experience elsewhere shows that the current growth being experienced in Africa cannot be sustained without a structural transformation that lifts workers from low-productivity agriculture and the informal sector to higher-productivity activities. This transformation is yet to take place in SSA. The booming price of commodities (oil, cotton, metals, and others) that the continent mostly exports, fueled a large part of past decades growth. This notwithstanding, investments remains low in Africa – less than 15 per cent of GDP, compared with 25 per cent in Asia and more than 80 per cent of workers are stranded in low-productivity jobs (Dinh, *et.al*; 2012).

Experience also shows labor-intensive light manufacturing led the economic transformation of many of the most successful developing countries. It needs to be recalled that high employment-intensity growth and rise in productive activities are important ingredients for poverty reduction and inclusive growth. Indeed, given the high levels of youth unemployment, Africa cannot avoid to industrialize. It is documented that the burden of unemployment is falling disproportionately on the youth. With more than two-thirds of its population under 25 years SSA is youngest region of the world. The youth bulge is increasing at an alarming rate. By 2045, 50 per cent of the population will be between 15 and 24 years old, adding another 173 million young people to the labour force. Across SSA, youth unemployment already stands at 35 per cent. Therefore, creating jobs at a rate fast enough to keep pace with population growth is an enormous challenge but an unavoidable undertaking (AfDB, 2012).

5.2 The Potential is Enormous

The potential for industrialization in Africa can be conceptualized from two perspectives. Firstly, the conducive environment in which Africa finds itself currently and the prospects for the future. Indeed, most publications portray Africa positively in terms of macro-economic stability, investment climate and democratic governance. Of course, there are areas of significant deficit in physical transport infrastructure, energy, and corruption. The outlook also appears positive, with many parts of the region forecast to continue experiencing relatively high growth rates and a number of African economies predicted to remain among the fastest growing in the foreseeable future (Ernst & Young, 2013).

Secondly, Africa's comparative advantage in terms low cost of labour and in natural resources. Indeed, given Africa's comparatively low skill to labour ratio it needs low-skilled jobs to make this happen. Manufacturing rather than services provides the basis for low-skilled jobs. Furthermore, the continent has a strong comparative advantage in natural resources, either in the form of energy, minerals or agriculture. These can be drivers of structural transformation through linkages, employment, revenue and foreign investment, provided adequate business environment and supporting policies are in place. It needs to be underscored that there is no inherent trade-off between commodity-based and labour-intensive industries: countries with natural-resource sectors also exhibit diversified manufacturing (UNDP, et.al; 2013).

Africa's enormous natural wealth is conceived to hold great potential for accelerating structural transformation and making growth more inclusive through the channels of putting in place the requisite infrastructure, strengthening skills, enhancing agricultural productivity, optimizing revenue from natural resources and forging strong linkages to and from the extractive industries. The effective performance of these channels will, at the end of the day, usher into a natural resource-led industrialization path.

5.3 Getting Down to Business

In this section we discuss the kind of things which need to be done in order for Africa to industrialize. That is, the "how" to do it. We adopt the perspective that successful industrialization in the continent can only be achieved by ensuring that firstly, the development paradigm is right, and secondly, ensuring that a conducive investment climate is in place.

5.3.1 An Appropriate Development paradigm

Neo-liberalism as a development paradigm is not inherently inappropriate for Africa's socio-economic development. Experience shows that its application elsewhere, including the Asia countries, USA and Europe, propelled growth and development. Subsequently, led to agricultural productivity, industrialization, employment creation and poverty reduction. However, what distinguishes its adoption in Africa from other countries, is the condition of dependence underpinning its application. Under conditions of dependence adaptation becomes difficult, if not impossible. Likewise, ownership of the development agenda by a country's leadership is strained. Furthermore, long-term development objectives of a country are subordinated to short-term objectives of growth, guided by regional and global development agenda (MDGs poverty reduction initiatives, social protection, etc.)

As already alluded to earlier, World Bank's policy conditionalities and the underlining assumptions, in most cases, had adverse effects on developing countries, including those in SSA. According to UNCTAD "big bang liberalization" contributed to developing countries (excluding China) increasing their trade deficit by 3 percentage points of GDP between the 1970s and 1990s, while the average economic growth rate was lower by 2 percentage points. Trade liberalization sharply increased their import propensity but exports failed to keep pace. Several studies have shown that premature trade liberalization during the 1980s and early 1990s was accompanied by the de-industrialization of most developing countries (Shafaeddin, 1995 and 1996). Africa suffered even more given the early stages of its industrialization process. Indeed, as trade liberalization intensified, de-industrialization also intensified.

The prominent and minimalist role, assigned to markets and state, respectively was wrongly conceptualized. Both theory and empirics underscore the fact that the market alone is not the only tool of coordination of economic activities. There are roles for the market and the government. Their relative importance tends to change in the course of industrialization and development. At early stages of development public guidance over markets, and for this the capacity of the government machinery for formulation and implementation of policies needs to be strengthened (South Centre, 2010).

The road map towards an appropriate development demands, first and foremost, that Africa has to reduce its policy and financial dependence on international financial institutions (IFIs). The re-gaining of the lost policy space, under dependence, is fundamental for countries' independence and flexibility in designing their economic, financial and social policies and institutions, aligned to their circumstances. This measure has to be complemented by having credible leadership, which is visionary and development oriented. In the context of this framework, the expected role of the state would be enhanced but in order to perform its envisioned role effectively, it has to undergo a major transformation with the ultimate objective of nurturing and sustaining a technocratic bureaucracy that effectively plans and delivers the expected results and outcomes, (Moshi, 2012b). The belated recognition, by African policymakers, of the need for a "developmental state" and for "the time is now" for Africa's industrialization has to be matched with concrete actions of reducing dependence and building

state capabilities. Unless this is done, even the adopted “Action Plan for Accelerated Industrial Development of Africa (AIDA)” will hardly be implementable.

5.3.2 Conducive Investment Climate

Informed and dictated by the appropriate development paradigm a friendly investment climate has to be created. The creation of such an environment is both a state, as well as, a private-sector’s role. A number of studies, especially from the international donor community, tend to claim that the Africa’s poor industrial performance is due to the deficiencies in the investment climate. Thus, playing down the deficiencies in the development paradigm which, in turn, undermine policy agenda for putting in place a requisite investment climate. For example, a development paradigm which is grounded on minimalist state assumes that the role of building infrastructure, skills-development and spearheading regional integration should be shouldered by the private sector. Indeed, such a situation cannot be tenable.

In reality, however, and learning from experiences elsewhere, government’s active role is indispensable in putting in place both hard and soft infrastructure, either alone or in partnership with the private sector. Without active role for government in these key areas, Africa will continue to lag behind other regions in terms of infrastructure gap which is already quite large. It is at least 20 percentage points behind the average for low-income countries on almost all major infrastructure measures. Likewise, lack of skills has been identified as one of the factors that constrain unlocking Africa’s industrial potential (Page, 2012).

In ensuring that the investment climate is right for effective mobilization of both domestic and foreign investment a comprehensive approach need to be taken on board by focusing on the industry system in totality. Usually, such a system comprises three major components namely: intermediary institutions (industry associations, training institutions, technology support, R & D institutes, financial institutions, etc); factor markets (natural resources, labour and skills, finance input supplies, infrastructure, etc.); business environment (macroeconomic policies, industrial trade regimes regulatory and legal framework, etc). In all these components, the need for coordination, consultation, and collaboration between the private and the public sector is implicitly conspicuous.

In addition, the investment climate improvement efforts should contain incentives that encourage firms to compete by exporting. There is solid evidence that firms that export are those with higher productivity levels (Söderbom and Teal 2003). This being the case, it is important for countries to embrace an export push strategy through which firms will learn how to compete. Further efforts should also focus towards supporting industrial clusters in form of export processing zones (EPZs) and the like. However, in order for these instruments to be effective, in attracting a critical mass of firms, they have to have the requisite enablers in terms of physical, human and institutional capital. Indeed, if the EPZs are adequately facilitated they can become centres for outsourcing arrangements between local and foreign firms

In the recent past, the improvement in investment climate has attracted a lot of FDI projects into Africa, mostly in the extractive activities, services and to some extent in the manufacturing. The

challenge remains that of tilting this investment destination towards manufacturing, and ensuring that the extractive activities create strong back and forward linkages to the rest of the economy as a way of promoting manufacturing.

The other challenge is that of ensuring that the mobilization of foreign investment does not lead to offering over-generous concessions to such investors, like granting of tax holidays and other monetary incentives. Such concessions are counterproductive as they contradict the objective of scaling up domestic resource mobilization as a way of reducing dependence. In actual fact, recent studies show that in spite of the improved investment climate, capital flight from 39 African countries over the 1970-2010 amounted to USD 1.3 trillion in real terms and up to USD 1.7 trillion including accumulated interest (Ndikumana et.al., 2012). Indeed, it is ironic that poor African countries that are struggling to mobilize resources have vast financial resources that they cannot access as they are hidden abroad.

6.0 Concluding Remarks

In this article we have raised both theoretical and empirical arguments to indicate why Africa must industrialize, not only as a way of spearheading structural transformation, but also as the surest strategy for attaining inclusive and sustainable growth. In other words, we pointed out that whereas neo-liberalism managed to revamp GDP growth in a number of African countries in the 1990s, 2000s and beyond, the quality growth was not consistent with the long-term objectives of structural change, inclusive development, job creation and proactive role in the globalization process.

These inconsistencies were a product of policies adopted by most African countries which were merchandized by the World Bank and International Monetary Fund. The policies were neither informed by Africa's quest for structural transformation nor aimed at reducing Africa's marginalization in the globalized world. In fact the policies were based on wrong assumptions on the role of state and industrial policy. This mismatch led not only to poor performance of the agriculture sector but also that of the industrial sector. Ultimately, the objectives of employment creation, enhancement of incomes and productivity, narrowing of technological gap, and reduction of inequalities were not attained.

To the extent the African leadership is at least, more aware now, than in the past, of the critical role industrialization plays in a country's socio-economic process, as a driver of structural change, enhancement of technological capabilities and creator of decent jobs, the cry for industrialization has become louder. It is in this context that we feel the time is ripe for embarking on serious industrialization drive. However, the starting point is for Africa to own the development process by, first and foremost, adopting a non-dependence development paradigm, given that the less dependent a country or region is, the better positioned to resist policy imposition. Therefore, such a paradigm should then inform and underpin policies, strategies and incentive structures (investment climate) for structural transformation, while appropriately defining the key roles to be played by both the public and the private sector in the process of industrialization.

References

Abramovitz, M., (1989), "Thinking about Growth", in: M. Abramovitz, *Thinking about Growth and Other Essays on Economic Growth and Welfare*, Cambridge.

AfDB, (2012), *Telling Africa's Development Story*, Tunis.

AfDB (2013) *African Economic Outlook*, Tunis

Ajakaiye, Olu and Howard Stein (2007), "Industrial-Led Development in Africa: Toward a Policy Framework", Nairobi and Ann Arbor.

Bagchi, A.K (1990) "Industrialization" in the *New Palgrave Economic Development*, New York: Norton &Co

Biggs, T., M, and Srivastava, P., (1995), *Technological Capabilities and Learning in African Enterprises*, World Bank Technical Paper No. 288, Washington, D.C.

Chang, Ha-Joon, ed (2003), *Rethinking Development Economics*, London.

Chenery, H., (1986), "Growth and Transformation", in: H. Chenery, S. Robinson, and M. Syrquin (eds), *Industrialization and Growth: A Comparative Study*, Oxford and Washington, D.C.

Chenery, Hollis (1979), *Structural Change and Development Policy*, New York.

Christiaensen, L.L. Demery, and I. Kuhl (2010), "The Role of Agriculture in Poverty Reduction: An Empirical Perspective", Working Paper 2010/36 United Nations University, Helsinki.

Dinh, T. Hinh, et.al; (2012), *Light Manufacturing in Africa: Targeted Policies to Enhance Private Investment and Create Jobs*, World Bank, Washington, D.C.

Economic Commission for Africa (2011), *Economic Report on Africa 2011, Governing Development in Africa the Role of the State in Economic Transformation*, Addis Ababa.

Economic Commission for Africa, (2013), "Report on International and Intra-African Trade", Addis Ababa.

Ernst and Young, 2013, *Africa's Attractiveness Survey 2013: Getting Down to Business*, N.P.

Guttal Shalmali (2007), "Development Research and Change", *IDS Development Bulletin Vol. 28 No. 2*, pp. 31-35, London.

Kuznets, Simon (1966), *Modern Economic Growth: Rate Structure and Spread*, New Haven.

Lall, S., (1999), *Competing with labour: Skills and Competitiveness in Developing Countries*, Geneva, ILO.

Lall, S., and Wangwe, S (1998) "Industrial Policies in Sub-Saharan Africa," *Journal of African Economies*, Vol 7(0), pp 70-107

Lin, Justin Y. (2012), "Structural Change in Africa", in, *Economics of Africa*, Oxford.

Lundvall, B.A, (1992), *National Systems of Innovation: Towards a Theory of Innovation and Interactive Learning*, London.

Moshi, Humphrey P.B (2012b), "Reflections on the Role of State in Socio-Economic Development Process", Mimeo, Dar es Salaam.

Moshi, Humphrey P.B. (2005), "Industrial Development Review in Tanzania", UNIDO, Dar es Saaam.

Moshi, Humphrey P.B. (2012a) "Sustainable and Inclusive Development in Africa: Why has Neo-Liberalism Failed to Deliver?," Kigali.

Moshi, Humphrey P.B. (2014), "Opportunities and Challenges for Extraction of Natural Gas in Tanzania": The Need for Adequate Preparedness", *African Journal of Economic Review*, Volume II (1), pp 25-37

Ndikumana, L. & Boyce, J.K. (2012b), Rich Presidents of Poor nations: Capital Flight from Resource Rich Countries in Africa" ACAS Bulletin 87, Special Issue (November).

Page, John (2009), "Should Africa Industrialization?" Paper presented at the UNU-WIDER/UNU/MERIT/UNIDO Workshop "Pathways to Industrialization in the 21st Century", 22-3 October, UNU/MERIT.

Palanivel, Thangavel and Fatma Gul Unal (2009), "Inclusive Growth and Policies: The Asian Experiences", New York.

Parck, H., and K. Sagagi (2006), "Is there a Case for Industrial Policy? A Critical Survey" (*World Bank Research Observer*, 21.2, 267-97).

Ravallion, Martin (2004), "Pro-Poor Growth: A Primer," World Bank Development Research Group (DECRO). World Bank Policy Research Working Paper No. 3242, Washington, D.C.

Reed, D. (1996), *Structural Adjustment, the Environment, and Sustainable Development*. London: Earthscan.

Rodrik, Dani (2007), *One Economics, Many Recipes*, Princeton.

Shafaeddin, M. (1995), "The Impact of Trade Liberalization on Exports and GDP Growth in Least Developed Countries", *UNCTAD Review*, January 1-16, New York and Geneva: United Nations.

Shafaeddin, M. (1996), "*Risks of Marginalisation of Africa in International Trade*", *Journal of Development Society*", Vol. 12, No. 2, 1996, pp. 254-274.

Shapiro, Helen (2007), "Industrial Policy and Growth", New York.

South Centre (2010), "The Impact of Global Economic Crises on Industrial Development of Least Development Countries", *Research Paper 28*, May, 2010, Geneva.

Söderbom Måns and Teal Francis, (2003). "Openness and human capital as sources of productivity growth: An empirical investigation," *CSAE Working Paper Series 2003-06*, Centre for the Study of African Economies, University of Oxford.

Szirmai, Adam (2009), *Explaining Success and Failure in Development*, UNU-MERIT, Maastricht.

Toye, John (2003), "Changing Perspectives in Development Economics", London.

UNCTAD, (1999), *Trade and Development Report*, Geneva.

UNDP, et.al; (2013), *African Economic Outlook 2013*; New York, Tunis and Paris.

UNIDO, (2009), *Industrial Development Report, 2009 Breaking in and Moving Up: New Industrial Challenges for Bottom Billion and the Middle Income Countries*, Geneva: UNIDO.

UNIDO, (2012), *Tanzania Industrial Competitiveness Report 2012*, Dar es Salaam/Geneva.

Van Ark. B. and M. Timmer (2003), "Asia's productivity Performance and Potential: The Combination of Sectors and Structural Change", The Conference Board.

Wangwe, S. (1995), *Exporting Africa: Technology Trade and Industrialization in Sub-Saharan Africa*, London.

World Bank (2008), *World Development Report 2008: Agriculture for Development*, Washington, D.C.

World Bank, (1989), *From Crisis to Sustainable Growth: A Long Term Perspective Study*, Washington, D.C.