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Deriving value from the Global Value Chain (GVC) concept: an approach to regional industrial policies

by Harry Zarenda

The need for sustainable structural transformation in Sub-Saharan Africa (SSA) is universally accepted and has more recently been reinforced by several international organisations, various structures within regional economic communities and analytical and policy-oriented literature. A convincing and effective regional industrial policy is one of the cornerstones of the Southern African Development Community's (SADC) regional integration strategy with member countries committing themselves to its implementation. However, minimal progress has been forthcoming on this front, as is borne out by the SADC review on this policy (SADC, 2011). As Erasmus (2012) points out, "(t)he realisation that all is not well in SADC (as reflected in the decision to review the Regional Indicative Strategic Development Plan – RISDP) presents an opportunity to rethink its approach to regional integration. There is not one single panacea but the effort will gain by accepting the need for governance reforms and the alignment of national policies to attain regional benefits for unlocking the regional potential in favour of national and regional development".

Since the turn of the century, as a reaction to the phenomenal shifts in the trends of world trade, new analytical tools have been developed to better understand these shifts and improve the quality of information for policy makers regarding the nature of sustainable industrialisation at a country, regional and international level. The framework of the 'global value chain' (GVC) has become pivotal to the analysis of industrial policy today. Even though much of the analysis regarding GVC has hardly been specific to regional economic communities, this brief introduction argues that the framework of such analysis can possibly be extremely 'valuable' in instituting industrial policies at a regional level.

This short paper begins by assessing the limited extent of present levels of industrialisation in SADC, and by introducing the relationship between industrialisation and growth, further reinforces arguments made earlier (UNIDO-UNCTAD, 2011; SADC, 2011) regarding the urgent need for cohesive industrial policies in the region. For a more detailed review of much of this latter thinking, see Zarenda (2012).

The second part of the contribution looks at the concept of the GVC and its possible applicability in a regional context such as SADC. The paper concludes by suggesting a 'needs' analysis regarding the implications of the concept of GVCs to better inform regional policy analysts as to how to begin implementing a viable regional industrial strategy.

Industrialisation in Africa – an opportunity missed

The failure, initially, of many of the post-independence states' attempts at industrialisation in Africa, followed by the economic crises and introduction of Structural Adjustment Programmes in much of Africa during the 1980's and 1990's led to valid claims of the continent's 'deindustrialisation'. There is a widespread consensus and evidence that much of Africa's positive growth since the mid-1990s and its ability to withstand the 2008/2009 global crisis were driven primarily by new mineral discoveries, rising commodity prices and a growth in domestic demand. As Page (2012: ii, 87) argues, "it is doubtful whether in the absence of structural change, sufficient growth can be sustained for Africa to reach middle income levels by 2025".

In fact, in another related paper, the same author (Page, 2011) argues that, since the mid-1990s, (in contrast with impressive 6% per year average growth in manufacturing in low-middle income countries in general), Africa's growth rate in manufacturing averaged only 3%. Citing UNIDO (2009) estimates to show that, since 1980, industry in Africa has declined in its share of global production and trade and on average is smaller as a percentage of the Gross Domestic Product (GDP) than it was in 1980 and furthermore, how estimates by the United Nations Industrial Development Organisation (UNIDO) show that Africa's share of global manufacturing (excluding South Africa) fell from 0.4% in 1980 to 0.3% in 2005, while the continent's share of world manufactured exports dropped from 0.3% to 0.2%. Page argues that apart from the contribution of the manufacturing sector being smaller than during the late 1980s it has also become less diversified and less sophisticated than it was in the 1980s. This, coupled with the global industrial economy having undergone major changes (in that developing countries have become major players in global manufacturing), means that Africa today faces a very different industrialisation challenge from that faced by earlier developing country entrants into manufacturing (Page, 2011:3).

In essence, there is a serious need for structural change in order to ensure that the growth trajectory in Africa is sustainable, and in order to achieve this, substantial industrialisation is required. The question is how to go about this major challenge. This is the central theme of a very recent UNIDO Working Paper (UNIDO, 2012) and some of the key messages in this UNIDO document (relevant to the present debate) can be found in summary form (Ibid.:v) and include *inter alia*:

- African countries can build on their recent economic growth achievements to initiate a new industrial upswing that will transform the continent's currently unbalanced economies towards increased manufacturing value added, currently accounting for less than 15% of GDP.
- Windows of opportunity for a renewed industrial effort are wide open due to the ongoing 'recomposition' of the global division of labour.
- The diversification of manufacturing industries cannot be achieved with a blueprint approach. A strategic, tailor-made mix of capacity building, private sector development, service models for cluster development and global value support is needed to boost industrial development in Africa.
- New industrial policy (NIP) can provide a platform for the specific design of these initiatives. In particular, it must address coordination problems, which impede industrialisation in developing countries, and which will not be resolved by market forces and a good investment climate alone.
- Trade policy and trade negotiations have to be aligned with the industrial-sector requirements and potential trade-offs need to be made explicit.
- Harmonised regional industrial policy is the key to the successful integration of Africa's regional economic communities (currently jeopardised by trade and fiscal imbalances and numerous Non-Tariff Barriers – NTBs).

What is of crucial importance in this UNIDO document is the elaboration of the National Industrial Policy Framework (NIP) framework relevant to the present age of industrialisation and which provides a valid explanation of the failures of previous attempts at industrialisation in African countries from really getting off the ground and building a sustainable and viable industrial base. UNIDO explains that 'blocked' or 'subdued' modes of industrialisation (which have typified much of previous industrial policies in many African countries) can better be understood using an NIP framework. Factors such as infant-industry survival, information and knowledge externalities, coordination failures in inter-industrial input delivery or pecuniary externalities, the tendency for upstream input domestic suppliers not investing in new firms or markets (while downstream clients are not investing either because inputs are not at hand) all point to market failures, which, according to the NIP viewpoint, can be turned into many 'opportunities' for coordination and support.

The document then further considers the viability of options such as beneficiation (going down the value chain) and that of providing intermediate inputs in several industries (going up the chain). According to the NIPF, value added in the latter (in terms of scale economies and exports) appears to be a more sustainable option. With regard to the former, in-country production for Global Value Chains can give guidance to industrial policy, although placing too much emphasis on this ought to be guarded against (UNIDO, 2012:8). Some of these issues will be considered in the more detailed section on GVCs, later in this paper.

The conclusion of the UNIDO paper (with its focus firmly on the NIP framework) highlights the importance of regional integration in the process of many African governments attempting to revamp their manufacturing industries. The UNIDO paper considers that a coherent regional industrial policy allows a solution to a particularly damaging coordination failure in African Regional Economic Communities (RECs) and is a 'quintessential' element, not only for the success of African RECs, but even for their survival.

"Unwilling regional champions pursuing their national industrial strategies without systematic consideration for the coherence of the region (and the necessary collective action), aggravate wittingly the regional inequalities. The policy status of regional industrial policy (RIP) has therefore to be higher than just 'supporting' competence, as it would be called in the EU, and must rise to the status of 'shared' competence between the community and member states, with all that entails" (UNIDO, 2012:20).

The UNIDO Working Paper thus considers a regional industrial policy as a 'systematic and coordinated encouragement of additional investment in otherwise neglected spaces, sectors and firm size-segments, which are flagged as regional industries. Regional industries in this sense are a golden opportunity to exploit backward or forward linkages across the region, gradually achieving a coherent industrial fabric, which avoids reoccurrence within the region and vis-à-vis external competitors' (UNIDO, 2012:20-21).

Global Value Chain analysis and the NIP

As trends in world trade between developed and developing countries (and among various developing countries themselves) have dramatically changed from the situation existing for much of the 20th century, the analytical approach to understanding these transformed trends has had to be adapted. In essence, the core concept in explaining these shifts is the notion of a 'Global Value Chain'

The notion of a value chain is not entirely novel and its theoretical origins can be traced back to one of the early pioneers of modern day development economics, the late Albert Hirschman in his famous work *"The Strategy of Economic Development"* (Hirschman, 1958). This seminal work expanded the constructs of 'backward and forward linkages' within a context of balanced and unbalanced growth for countries at early stages of development. By the 1980s, the formulation of value chain analysis was extensively formulated by Michael Porter (1990), who argued that this formed the basis of 'competitive advantage' for nations. Since then the GVC has provided a slew of literature justifying forms of policy intervention in devising industrial and trade policies for various countries.

In the Economic Report on Africa (ECA, 2009) the Schmitz approach whereby the notion of a 'value chain' incorporates all value-generating activities, sequential or otherwise, required to produce, deliver and dispose of a commodity represents the starting point in the analysis (Schmitz, 2005). The Economic Report on Africa then presents the more specific definition by Kaplinsky and Morris (2002) whereby the value chain is referred to as describing "the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformations and the input of various producer services), to delivery to the final consumer and final disposal after use".

In other words, as modern day productive activities belong to different sectors of the economy, value chain analysis requires a multi-sectoral framework for studying the interlinkages among the activities associated with the product. The Economic Report on Africa refers to value chain analysis as involving, primarily "drawing the economic map or footprint of inputs and outputs arising directly from the production, use and disposal of a commodity" (ECA, 2009:144).

Operationally, the analysis involves, *inter alia*, the identification by firms through disaggregation and quantification of the core functions of the firm and logically 'delineating, categorizing and quantifying all the activities through which a product passes' (Ibid.:145). Applying this framework of analysis has become more complex, involving not only the Hirschman concepts of backward and forward linkages but also identifying horizontal and vertical linkages as well as upstream and downstream activities in a productive chain.

The level of sophistication of analysis regarding the importance of a global value chain approach has increased significantly and has certainly become a key component of present day industrial policy formulation. As far as agricultural commodities are concerned, the Economic Report on Africa explores the possibility of agricultural transformation for Africa focusing on the value chain of strategic commodities. Its conclusion is that it is not only relevant in a global context, but critically important in a regional context as well (Ibid.:173).

As far as a more generalised approach to the critical importance of commodities (involving both agriculture and mining) in Sub-Saharan Africa is concerned, there has been some encouraging and important work done by Making the Most of Commodities Programme (MMCP) in a series of papers relating commodities and linkages with industrial development on the subcontinent (Morris et al., 2011a, b and c). The starting point in this analysis rests with the identification of a shift in 'global economic gravity from high-income northern to low-income southern economies' (Ibid., 2011a:7) which has not only suggested a reversal in the long-term declining trend in the commodities-manufactures terms of trade, but also suggests that the structure of global value chains themselves have shifted in many sectors in that lead firms are actively seeking to outsource non-core competencies and thus promote linkages. In these researchers' opinion, there could be a new era emerging in the relationship between the exploitation of commodities and the growth of industry.

Although the work of the MMCP focusses more on a global value chain analysis the input of this work could have enormous relevance within a southern African context. As is the case with the Economic Report on Africa (which dealt specifically with agricultural value chains) the extension of the MMCP work to other commodities (copper, diamonds, gold, oil and gas, mining services and timber) in eight SSA countries (Angola, Botswana, Gabon, Ghana, Nigeria, South Africa, Tanzania and Zambia) suggests that there exists, within the region, substantial potential and considerable scope for enhancing both the breadth and depth of linkage development (Morris et al., 2011b).

A needs analysis for a Regional Industrialisation strategy incorporating GVCs

What the above analysis has shown is that regional industrial strategies are essential for the substantial transformation of the economic structures in various regional communities in Africa. As a conceptual tool, the GVC framework certainly does provide essential pointers as to how such transformation could take place through economic diversification. The framework represents a much more dynamic approach to the analysis of industrialisation in the changed world of the present. Studies from international organisations, as well as a diverse range of disciplines, show that Global Value Chains have become much more prevalent and more elaborate during the past 10-15 years. While many international firms have had operations and trading relationships abroad during much of the 20th century, the introduction of Global Value Chains into the world trading environment has forced a change in thinking regarding these operations – these now focus on activities that are integrated in a much more complex manner. A value chain now refers to a full range of activities such as design, marketing, distribution and support to final consumers. The frequent geographic separation of firms and workers characterising more complex Global Value Chains has a much more profound effect today than in the past and raises interesting evolving questions regarding governance issues, technological spreads, ownership and distribution, labour policies and standards as well as competition issues, to mention but a few. There is additionally, a range of GVC patterns ranging from the relatively straightforward, more market related chains to more hierarchical chains, relying on highly complex monitoring and control by leading firms subcontracting suppliers making an overall GVC-oriented industrialisation strategy difficult to implement. In fact, within the literature on Global Value Chains, there is even a differentiation as referred to above between 'Global Commodity Chains' and 'Global Value Chains', raising questions regarding the complexity of the operation. Commodity chains have a much more direct interaction between seller and buyer, while Global Value Chains often involve third parties (or more) in particularly complex operations. Value chain analysis is certainly is not a 'one size fits all' set of recommendations and has to be carefully designed. These difficulties, while they are not to be underestimated, ought not, however, to detract from the overall thrust of attempting to use this framework for a suggested industrialisation policy for RECs. It is certainly preferable to an uncoordinated, haphazard form of industrial policy guided by selfish national interests.

For a starting point, there is a need to construct, as comprehensively as possible, Value Chain analyses for a REC such as SADC (reflecting global, commodity and regional frameworks). This would incorporate a detailed analysis of production and consumption patterns currently prevailing in the region. A regional input-output analysis needs to be done in order to look at some of the patterns of existing linkages. This, in turn, would entail the requirement of reasonably accurate and reliable census statistics for the region that ultimately would raise questions about the 'value-added' of such an exercise. Alternatively, one could be less ambitious and expand on the micro-studies of selected individual industrial clusters, tracing the linkage effects presently existing, in the manner that Morris et al. (2011b) have done. This could be expanded to conduct a census of some kind of existing value chains at not only commodity and global levels, but also at the regional level, to focus on expanding such activities in a more formal level. Furthermore, some form of cost-benefit analysis, that indicates not only existing linkages, but also prospects for future value-added possibilities arising from enhanced value-chain activities is also needed. Not all countries will benefit equally from a regional industrialisation policy, and losers in the process will have to be compensated, if there is to be a collective buy-in from the various members of the SADC community. Participation by all members of SADC is essential for this.

Extensive participation is not only related to governments. Significant stakeholder involvement would also have to incorporate broad participation of all actors in the process -involving private-sector firms in the value chain from input suppliers through to the final market retailers, service providers, labour unions and other participants in the process. The logic of this exercise would be that local participants (as well as foreign owners of such chains) are familiar with factors more pertinent to the local setting and could be better placed to identify constraints as well as opportunities. This raises questions regarding the formalisation and degree of such participatory initiatives. There is a spectrum of possibilities ranging from minimal (involving interviews, discussions with and questionnaires to participants), to much more formal and extensive participation in the form that the various entities are more directly involved in both implementation as well as intervention. The latter would necessitate the choice of an organisational structure that could be unwieldy and problematical, to the extent that national states could feel a threat to their autonomy.

Conclusions

The need for increased industrialisation in African countries is beyond question and within regional economic communities on the subcontinent there is urgent attention being directed at the formulation of integrated regional industrial policies to bolster such industrialisation and attempt to involve countries with divergent raw materials and historical production patterns into regional and global production networks.

This study has attempted to show how relevant a Value Chain Analysis framework is in helping explain more recent trends in world trade and industrialisation policies. With increased globalisation, rapid technological change and enhanced capital mobility, the subcontracting of complex production processes across geographical boundaries, either globally or regionally, has become the focal point of a ‘new industrial policy’ set of initiatives. With deeper levels of integration in RECs such as SADC, the need for a regional industrial policy set of initiatives that is more coordinated and coherent has become imperative and the understanding of present industrialisation patterns with a value chain framework is integral to this process in that it offers a much more complex and dynamic set of opportunities to understand future patterns of industrialisation. However, for these frameworks to be converted into viable, promising and sustainable industrialisation strategies, by communities such as SADC, requires overcoming several challenges initially at the implementation level. If these challenges are not met, the entire credibility of the SADC institutional arrangement could be threatened. There is indeed value in the concept of value-chain analyses – but there are institutional and implementation issues that have to be addressed and resolved before considering whether value could be added to this as a launching pad for a regional industrial strategy. Much of the future prospects for success in this strategy is going to hinge around the four 'C's: **cooperation, coordination, capacity and capability**.

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