
Industrial hubs in Africa and industrialisation: Diversity, unevenness and strategic approach

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Introduction

African policymakers and researchers have recently shown increased interest in industrial hubs, a term used to represent industrial parks, economic zones and special economic zones, which flourished worldwide after the late 1950s, concentrated in the newly industrialising Asian economies and acknowledged for their direct contribution to economic catch-up and integrating within a broader industrial policy framework. However, Africa is relatively new to industrial hubs, whose contribution to the continent's industrialisation has been limited and has generated mixed outcomes. Contrary to accepted wisdom, underperforming African

industrial hubs offer an opportunity for policy learning from successes and failures.

Diversity has been an essential attribute of African industrial hubs, and no two national experiences are the same, implying the continent's diverse economic structure and context. This implies that a uniform policy prescription is likely to fail and that critical lessons can be drawn from both positive and negative aspects of the various uneven experiences. Multiple cases involving experiences from Mauritius (1970-), Morocco (2000-), Ethiopia (2010-), and China-Africa economic and trade development zones (2000-) illustrate the diversity and unevenness of African industrial hubs. In addition, key

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This Policy Brief is based on the following Working Paper:

Oqubay, A. (2022). African Industrial Hubs and Industrialisation: Diversity, Unevenness, and Strategic Approach. SARChI Industrial Development, University of Johannesburg.

insights can be drawn from the strategic approaches to African industrial hubs.

Economic agglomeration and industrial clusters have always been key features of industrialisation and economic development. The industrial hubs in East Asia (since the 1960s), as pioneers, and China's massive wave of industrial hubs since the 1980s, were driven by policies to foster economic catch-up and structural transformation. This policy brief highlights that the development of synergies to advance industrialisation requires a strategic approach to industrial hubs placed within the broader industrial policy framework. It also highlights the need for learning from the Asian experience, for experimenting and learning by doing, and for being aware that African countries have an opportunity for carbon-neutral industrialisation.

A structural transformation perspective regards manufacturing as the engine of structural change, coupled with acknowledging that exports are critical to international learning and increasing returns to scale. Hence, first and foremost, the purpose of industrial hubs is to develop synergies to advance industrialisation and incubate technological capability. At the deepest level, industrial hubs are institutional innovations that enable building on latecomer advantages to catch up and stimulating inducements and tensions activated by unbalanced growth, as was evident in the newly industrialising East Asian economies in the post-1960 era.¹

Ensuring industrial hubs play the roles of development incubators necessitates integrating them into the broader industrial policy framework to generate long-term and

strategic benefits. Doing so would ensure alignment with targeted strategic sectors and the most productive activities, integrating all policy instruments to build productive capacity and industrial transformation and generate dynamic comparative advantages.²

Industrial hubs in many African countries remain fragmented and do not adequately complement their respective governments' industrial policies, having only limited synergy with industrialisation. Because of ineffective industrial policy and strategic orientation, most industrial hubs have been of the 'enclave' type, not promoting productive capacity, deepening domestic linkages or harnessing technological capabilities. Most industrial hubs have low capacity utilisation and occupancy levels – two-thirds of all hubs operate at less than 50% of their capacity. The primary orientation of policy instruments has been limited to applying financial and particular customs regimes, with limited support for investment and trade facilitation and insignificant support for skills development, technological capability and domestic linkages. This evidence contrasts with the Asian experience, where industrial hubs evolved into development incubators – generating industrial upgrading, innovation and technological capabilities.

Comparative evidence from Mauritius, Morocco, CETZs and Ethiopia

A comparative case study based on four carefully selected experiences allows comparative perspectives and policy learning, representing diverse contexts and exhibiting

industrial hubs synergise urban systems and urbanisation, national infrastructure development, education and research institutions, and environmental sustainability. Constant adaptation to evolving external environments, national contexts and the life cycle of industrial hubs is essential. Stimulating cooperation and competition is central to invigorating economic agglomeration and goes hand in hand with stimulating linkage effects and the learning ecosystem.

¹ Oqubay and Lin (2020: 30) offer a functional definition to capture the various contexts and typologies of industrial clusters: "Firms' industrial and spatial agglomeration in the same or related industries, where various support institutions and stakeholders (firms, institutions, and government) interact, cooperate and compete for mutual gains in productivity, linkage effects, and innovation, and develop their competitive positioning."

² Furthermore, creating an active industrial cluster and maximising positive spillovers means that

unevenness and mixed outcomes over the period 1970 to 2020: First, that of Mauritius, which pioneered export-processing zones (EPZs) in 1970 and has implemented a variety of industrial hubs over the past 50 years. Second, special economic zones (SEZs) were initiated within the China–Africa cooperation framework under the Forum on China–Africa Cooperation (FOCAC) platform in the 2000s and 2010s and popularised based on the Chinese experience of industrial hubs. Third, the industrial hubs of Morocco, specifically the Tanger Med Industrial Complex, developed in the 2000s and 2010s and exhibit a novel approach to industrial hubs; their enormous scale has been unique in the strategic significance of these hubs. Fourth, that of Ethiopia, a newcomer to industrial hubs, which introduced a policy in the mid-2010s and relied on the learning and experiments of a new generation of industrial parks to support industrialisation.

Despite their potential contributions to accelerating industrialisation, upgrading technological capability, and synergising catch-up, African industrial hubs have played limited roles. The government policies of various African countries need a comprehensive and strategic perspective on the topic. Policy experiences and outcomes have been diverse and uneven. Despite the paucity of research on Africa’s industrial hubs and their synergy with industrialisation, it is possible to draw broad conclusions and policy lessons.

Mauritius: Industrialisation and pioneering EPZs

Mauritius built Africa’s first export-processing zone to promote export-led industrialisation in 1970. During Mauritius’s early industrialisation phase, the initial industrial hubs were EPZs established across the island without building special production facilities. The second phase of the EPZ model comprised the development of industrial estates (covered buildings built on serviced land with the necessary utilities). Mauritius’s strategic approach to the development of industrial hubs highlights essential lessons. Industrial hubs served the country’s economic transformation and

development strategy: export-led industrialisation, an industrial hubs approach blended with the industrial policy framework, constantly upgraded to reflect the sectoral focus and changes in the external environment. In the 2000s, Mauritius built platforms and hubs for the ICT and financial sectors. The Mauritian experience underscores that developing an industrial ecosystem makes a vital strategic contribution to advancing industrialisation and economic diversification woven within the industrial policy. An essential lesson is that the industrial hub is not an end in itself or a ‘magic bullet’ – a reality that many African governments fail to comprehend.

The Chinese economic and trade development zones (ETCDZs)

The Chinese ETCDZs are industrial hubs with unique features and are related to China–Africa economic ties that aim to leverage the former’s expertise and long experience in developing SEZs, creating synergies to advance industrialisation. While contributing positively to industrialisation in many African countries, these industrial hubs have shown significant unevenness depending on the context of the host country – its development strategy, comparative advantage positioning – and the Chinese institutions and firms involved. A total of seven industrial hubs were built in Nigeria (Lekki and Ogun-Guangdong), Egypt (Suez), Ethiopia (EIZ), Zambia (Lusaka and Chambishi), and Mauritius (Jen Fei).

Morocco’s strategy on industrial hubs

Industrial parks in Morocco were initiated in early 2000 and focused on creating an industrial ecosystem for priority sectors, focusing on local value addition and verticality. Morocco’s industrial policy is built on the country’s comparative advantages – its proximity to Europe as a primary market for its industries, and cheaper wages than in Europe. These provide a significant attraction and a comparative advantage for foreign investment in manufacturing by Europe, Asia and the United States.

Morocco developed an export sector driven strategically to build international competitiveness by expanding industrial sectors and building world-class logistics and port services offering short transit times. In addition, Morocco has targeted strategic priority industries: the automotive, aeronautics, electronics, pharmaceutical, food and agribusiness, leather and textile industries. These six industries have enabled Morocco to benefit from employment creation, export generation and the development of domestic linkages and domestic capabilities. Developing Tanger Med as a logistics hub has been a critical strategy to improve export competitiveness and develop the manufacturing capability of the country. The Tanger Med Industrial Hub (Tanger Med Zones) is considered a world-class industrial hub because of its unique features, scale and performance. It is the government's flagship project, with complex and distinctively African characteristics. The project, championed and led by King Mohammed VI, has played a critical role in the emergence of Morocco as the continent's manufacturing and port powerhouse.

Ethiopia's experiment with industrial hubs

Ethiopia's pursuit of industrial hubs is a work in progress and, unlike many African countries

that have had industrial hubs for extended periods, Ethiopia is a newcomer to hub development, and it is still a work in progress. Since 2013, the country has pursued a rare approach to developing industrial hubs based on targeted learning from other Asian (South Korea, Singapore, China, Vietnam) and African countries (Mauritius and Nigeria). The new strategy emphasises that industrial parks would be primarily *specialised* or *sector-focused*; *eco-industrial parks* would adhere strictly to environmental sustainability, incorporate international practices, *ensure execution excellence, and provide one-stop government services* within the industrial park. While emulating others is vital, learning by doing is even more crucial. In Ethiopia, learning was promoted through experiments, piloting and phased development approaches, combined with a systematic understanding of lessons from practical experiences in the country. The state's role and a consistently high level of political commitment are crucial to the success of industrial hubs. By 2022, 24 public and private industrial parks had been built, including Hawassa Industrial Park, which employs 35 000 workers, Africa's largest textile hub, an eco-industrial park to achieve carbon neutrality.

Comparative perspective of African industrial hubs (1970-2020): A summary

The matrix below summarises the key features of the four cases.

	Mauritius	ETCZs	Tanger Med Complex	Ethiopia
(1) Periodisation	1970–2020	2001–2020	2001–2020	2011–2020
(2) Industrial policy (a) Strategy (b) Policy incentives/ reciprocal (c) Government coordination	a) Active industrial policy: Export-led industrialisation b) Fiscal, customs, exports c) One-stop, high coordination	a) Diverse experience and weak strategic approach b) Inconsistent incentives c) Weak coordination	a) Active industrial policy: Export-led industrialisation b) Fiscal and export supports c) Effective coordination	a) Active industrial policy: Export-led manufacturing b) Fiscal and export supports c) Modest coordination

(3) Economic diversification/ industrial upgrading	a) Successful diversification b) From mono-crop to light manufacturing – textiles c) To services (ICT, international finance, logistics)	a) Inadequate diversification b) Mixed outcomes – moderate to inadequate	a) Effective diversification b) Diverse light and medium manufacturing c) Service hub – port, logistics	a) Inadequate diversification b) Light manufacturing c) Agriculture linkage
(4) Drivers of comparative advantage	a) Labour b) Preferential market access c) Government support	a) Varies among countries b) Labour, market access, natural resources	a) Proximity to the EU market b) Labour cost and skill c) Gibraltar Strait location d) Government commitment	a) Labour and energy cost b) Preferential market access c) Government support
(5) Industrial ecosystem a) Specialised/generic b) Scale and scope c) Location/spatial d) Finance/development	a) Specialised hubs EPZ/Cybercity/finance/logistics b) Moderate scale c) Entire island, high density d) Government and private	a) Generic b) Large scale c) Diverse locations – thin, weak infrastructure provision d) Government–private	a) Specialised hubs b) Enormous scale c) Northern Morocco/coastal d) Government–private	a) Specialised hubs b) Medium to large scale c) Diverse locations d) Government–private
(6) Performance a) Manufacturing capacity b) Exports c) Technological capacity/linkages	a) Manufacturing – high b) Exports – high c) Inadequate technology/linkages	Diverse outcome a) Inadequate–moderate b) Inadequate–moderate c) Inadequate	Excellent outcomes a) High manufacturing b) High exports c) Moderate	Work in progress a) Modest manufacturing b) Limited exports c) Inadequate
(7) Policy learning a) Learning from international experience b) Experimental and phased approach	Effective learning a) Intense and targeted learning b) Phased approach	Diverse and mixed a) Inadequate and passive b) No systematic approach	Effective learning a) Moderate – private b) Phased approach	Systematic learning a) Targeted and intense learning b) Piloting and phased
(8) Role of state a) Political commitment b) Strategic role c) Government–industry dialogue	a) Strong political commitment b) Effective strategic role c) Exemplary dialogue	Variations a) Low political commitment b) Ineffective strategic role c) Weak dialogue	a) Strong political commitment b) Effective strategic role c) Effective dialogue	a) Strong political commitment b) Effective strategic role c) Effective dialogue

Source: Author's compilation and analysis

Towards a strategic approach to industrial hubs: Conclusions³

Important insights can be drawn from this paper. First, the evidence shows that the diversity of African experiences, along with the uneven and mixed outcomes of policies, are critical conduits of policy learning and highlight that a strategic approach within industrial policy frameworks is essential for developing synergies that advance industrialisation. This has further, immense implications for research and policymaking, underscoring that local context and the specific environment matter, and that a prescriptive 'one-size-fits-all' approach is unlikely to work. It shows the significant gap in research that focuses on specific countries and individual industrial hubs to enable a better understanding of the dynamics of hubs and the importance of extensive research to fill gaps in the empirical evidence.

Second, the cases demonstrate that industrial hubs are not an end in themselves. Industrial hubs energise industrialisation and promote industrial transformation, and this requires a strategic approach aligned with industrial policy frameworks. This approach necessitates that the state plays a developmental role and engages in productive dialogue with the private sector. The dedication of political leadership to industrialisation and policies on industrial hubs is a critical factor for success.

Third, lessons from the Asian experience and literature reviews suggest that industrial hubs are likely to be successful in advancing industrialisation and economic catch-up when they are specialised or sector-specific (or activity based). This could enable coherence with industrial policy instruments, assist the execution of incentive schemes, build a dedicated infrastructure, promote learning among firms, facilitate the development of an

industrial workforce and domestic linkages with local companies, along with verticality. It should be noted that industrial ecosystems have to aim for firms and workers to boost productivity and productive capacity. Industrial hubs have the prospect of effectively managing foreign direct investment to transfer know-how, value addition and domestic linkages.

Finally, industrial hubs are critical drivers of a carbon-neutral path and of the greening of the production system. African governments can use industrial hubs as an effective policy instrument for a carbon-neutral economy.

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Recommended citation

Oqubay, A. (2022). Industrial hubs in Africa and industrialisation: Diversity, unevenness and strategic approach. SARChI Industrial Development Policy Brief Series PB 2022-03. SARChI Industrial Development, University of Johannesburg.

Acknowledgement: The South African Research Chairs Initiative (SARChI) was established in 2006 by the Department of Science and Innovation (DSI) and the National Research Foundation (NRF). The funding support of the DSI and the NRF through Grant Number 98627 and Grant Number 110691 for the South African Research Chair in Industrial Development has made this policy brief series possible.

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³ For diverse perspectives on industrial hubs and industrial policies, see Oqubay and Lin (2020), UNCTAD (2021), and Oqubay (2022).

Industrial Development (SARChI ID), the University of Johannesburg (UJ), the Department of Science and Innovation (DSI) or the National Research Foundation (NRF).

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