

Africa Current Issues

African SEZs & GVCs in the Age of Automation

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1.0 Introduction

Is the African dream of industrialisation via special economic zones (SEZs) hosting global value chains (GVCs) feasible? SEZs are “demarcated geographic areas contained within a country’s national boundaries where the rules of business are different from those that prevail in the national territory.”¹ Key success factors for SEZs are cheap labour, large domestic markets, proximity to inputs, and high quality infrastructure,² supported by strong institutions and leadership.³ In a way, many SEZs are cross-border versions of industrial parks, designed to enhance industrialization by attracting investment, improving export performance, creating employment, and generating “cluster effects” among tenants.⁴

The global value chain (GVC) concept describes the activities required to produce a good or service, and to coordinate its supply, distribution, and post-sales activities across borders. GVCs are now involved in two-thirds of global trade.⁵ China’s phenomenal industrial transformation rode on the back of SEZs and GVCs. As wages in China continued to rise, the desire for higher value-added manufacturing pushed labour-intensive elements of many GVCs to neighbouring but less developed Asian countries, such as Vietnam and Bangladesh.⁶ However, certain African countries, such as Ethiopia, have also benefited. And like China, producers based in these countries have been able to participate in GVCs within SEZs. Note that SEZs are not without downsides. For instance, tax concessions to special economic zones deprive governments of revenue. Certainly, development would have occurred in the absence of these special zones in some cases.⁷ Today, SEZs are considered to have succeeded in China, followed by success in emerging economies such as Vietnam, Bangladesh and Ethiopia.⁸

Only a few African SEZs have been similarly successful. Mauritius led the way on SEZs in Sub-Saharan Africa in 1971.⁹ Since, many African countries have implemented various forms of special economic zones (SEZs), ranging from export processing (EPZ) and free trade zones (FTZ), to industrial parks. With few exceptions, their performance has not been encouraging.¹⁰ Some observers view these failures as the result of bad luck combined with weak policy.¹¹

The failures of industrial parks, being older and simpler than SEZs, have been widely studied. Implementation may fail in several ways, and the World Bank categorizes park failure into four types. First, parks may be planned but never built. Next, they are built, but fail to find suitable tenants. In the third category, parks are built and well-subscribed but do not yield the expected benefits, such as “cluster effects”. For the fourth category, parks are built, enjoy great custom, and produce cluster effects, but have “negative spillovers” and “crowding out” effects. In other words, if successful, they could weigh on “investment climate outside the park”. Still, African “park and zone programs continue to proliferate, and many continue to under-deliver.”¹²

Industry 4.0 labour saving technologies – the Internet of Things, advanced robotics, artificial intelligence, and 3D printing – tend to reduce factor advantages of low wages in the production

process.¹³ Thus, Africa's relatively cheap labour will cease to be a source of advantage in the future.¹⁴ This is inevitable if industry needs less labour by the time emerging Asian economies – which working in tandem with China currently dominate labour-intensive GVCs – mature.

FDI into African manufacturing (2016)			
Country	Investment (\$ bln)	Market share	Investment projects
China	36.1	38.4%	66
United Arab Emirates	11.0	11.7	35
Italy	4.0	4.3%	20
United States	3.6	3.9%	91
Japan	3.1	3.3%	27
United Kingdom	2.4	2.5%	41
France	2.1	2.2%	81

Source: Ernst & Young; Signe (2018)¹⁵

African countries hope to receive many of the 100 million labour-intensive manufacturing jobs expected to exit China for lower cost jurisdictions by 2030.¹⁶ In 2016, China invested in 66 African manufacturing investment projects worth \$36 billion. With its 38 percent market share, China has become the lead foreign investor in African manufacturing, overtaking the United States.¹⁷ Still, many labour-intensive GVCs are now facing disruption from new technologies, especially automation. What must African SEZs do to remain a force in their countries' industrialisation goals? To answer this question, the next section examines why many SEZs in Africa have performed below expectations, and is followed by several potential ways forward.

2.0 Why have African SEZs underperformed?

Factors identified for the poor record to date of SEZs in Africa relate to “problems with infrastructure, local management, policies and incentives, location, design and maintenance, and promotion.”^{18,19} Poorly-skilled labour has also been identified as a constraint.²⁰ Still, it is important to point out that while African SEZs have been underwhelming, there are a few exceptions.²¹ Mauritius is one. Kenya, Madagascar and Lesotho have been somewhat impressive as well. Despite these successes, African industrial parks have underperformed relative to their Asian counterparts. One possible explanation is that the manufacture-to-export Chinese model replicated successfully by East Asian countries, which African countries have been trying to replicate, may soon become obsolete.²² This view sees the ability of SEZs to circumvent the many trade constraints faced by African countries as inadequate to offset the current advantages of entrenched Asian players, who may prevail until well after automation technology closes the window for the SEZ model by eliminating unskilled labor in production.²³

Indicators of physical & institutional infrastructure in SEZs		
	Average Africa sample	Average non-Africa sample
Power outages (in hours downtime):		
Within SEZ	44	4
Outside SEZ	95	46
Import customs clearance times (in days)		
Within SEZ	7.1	3.4
Outside SEZ	10.3	11.0

Source: Newman et al. (2016), Farole (2011)²⁴

Studies find African SEZs relatively more expensive to develop than in Asia, cite weak linkages between African SEZs and local economies, and weak job creation performance.²⁵ Even when incremental job creation in African SEZs is observed, the jobs tend to be low-skilled and not on the scale expected or seen in better performing Asian SEZs. Consequently, the realisation of the immense potential of African SEZs to become major beneficiaries of labour-intensive manufacturing foreign direct investment (FDI) is increasingly doubtful, especially from China.

Market size vs. Competitiveness of Africa's 10 largest manufacturing countries		
	Large market	Small market
High competitiveness	Egypt, South Africa, Morocco	Tunisia, Kenya, Cote d'Ivoire, Ghana
Low competitiveness	Nigeria	Zambia, DR Congo

Source: Signe (2018)²⁶

Although infrastructure and trade facilitation are reportedly better for firms inside African SEZs than for those outside, even these are observed to be below international standards.²⁷ For example, reported average downtime in production due to power cuts or shortages of about 44 hours per month is more than ten times that for non-African SEZs. Also, clearance of goods at ports take longer relative to non-African SEZs. Against this backdrop, firms in African SEZs might be ill-equipped to compete in a fiercely competitive global trade environment that is already within the tight grips of "factory Asia". That said, those few African countries such as Egypt, South Africa and Morocco, which have large markets and high competitiveness, can compete favourably with their Asian counterparts.²⁸

These success stories may soon have company. Relatively new Chinese-backed SEZs in Ethiopia, Egypt, Mauritius, Nigeria and Zambia, initiated in the early 2000s, have a decent chance of succeeding. Companies from China's own successful SEZs are backing African operations: Tianjin TEDA in Egypt, Nanjing Jiangning Development Zone in Lekki, Nigeria, and the Suzhou Zhangjiagang Free Trade Zone in Ethiopia.²⁹ Chinese motivations for developing SEZs include creating demand for their machinery and equipment, taking advantage of preferential African trade agreements with America and Europe, and gradually weaning China from its dependence on low value-added and labour-intensive manufacturing.³⁰

3.0 Ways forward

China, India and smaller Asian countries are already entrenched in global value chains. Automation in these GVCs might, by the time the continent deals with its competitiveness challenges, diminish the opportunity for migration of labour-intensive manufacturing to Africa. Thus, over time, there would increasingly be less scope for African SEZs to participate in GVCs.

However, there are other opportunities for African SEZs. Domestic markets will still seek specific types of manufactured goods.³¹ The most attractive segments are "consumer-facing" and "infrastructure-related".³² With a projected revenue increase of \$122 billion over the next decade, agro-processing is one. Cement production and clothing and footwear, with projected revenue increases of \$72 billion and \$27 billion over the next decade respectively, are also seen as attractive. Automobiles and consumer goods are promising manufacturing subsectors.³³ And depending on the ambitions of the manufacturers and prevailing trade dynamics, these ventures could be extended region-wide or across the continent. Thus, the primary objective of African SEZs

should now shift to focus on intra-African trade.³⁴ SEZs could also serve as reform labs, as pioneered by China and closer to home, Mauritius. Clearly, local firms would be crucial to such a strategic re-orientation, and African SEZs should view them as primary targets.

3.1 SEZs as reform labs

The concept of an “Early Reform Zone” (ERZ) is an option. Even when firms in the broader economy suffer from a lack of quality infrastructure, red tape, and other challenges, ERZs circumvent these barriers by engaging reputable commercially oriented management firms that promote rapid expansion of tenant firms and their interests. “Second-generation” SEZs differ from the first-generation by being less capital-intensive and not being subsidized.³⁵ As they are designed to be permanent, there is less time pressure. Another key distinction of ERZs is pace. ERZs have the management resources to rapidly create the conditions for firms to be globally competitive within a specific geographic area in an otherwise distorted local economy.

3.2 Strengthen linkages with local economies

Foreign firms can be fickle.³⁶ Once they leave without having integrated with local firms, or acquired the expected attendant knowledge and technology transfer, they depart without the envisaged advantages that attracted them in the first place. They will view this as a failure.

As opposed to the current practice of targeting foreign investment, African SEZs should increasingly look to domestic firms as suppliers, channels and capital sources. The idea is far from new: local firms have over time come to dominate SEZs in Malaysia, Korea, and Mauritius.³⁷ Emerging Asian countries like Bangladesh and Vietnam are also beginning to record a higher level of participation by local investors in their respective special economic zones. This is not yet a common practice in many African countries.³⁸ This is a major factor in their underperformance.

Nonetheless, African SEZs often appear to be “enclaves” for foreign investors.³⁹ In light of evidence in East Asia showing a strong correlation between SEZ performance and linkages to the local economy, African zones would be well-advised to seek local linkages. This could be encouraged by governments through local content policies. Joint ventures with local firms are also another path to this target. However, the ease of collaboration among foreign and domestic firms is often dependent on sector dynamics. Thus, local firms might collaborate and participate better in the value chain of a less complicated sector such as agriculture, rather than sectors that require greater technological or specific domain know-how.⁴⁰

3.3 Plug into intra-African GVCs

Automation and the relentless approach of Industry 4.0 may make Africa’s place in global value chains non-existent even when Africa finally gets its SEZ act together. This is because GVCs in many industries may have become obsolete by then, with production and consumption becoming increasingly domestic or regional.⁴¹ Fortunately, there is an opportunity to develop regional GVCs via the respective regional customs unions on the continent. And with the African Continental Free Trade Agreement (AfCFTA) soon to be operationalized, broader continental opportunities are on the horizon.

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Author: Dr. Rafiq Raji

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Contact Information:

Yvonne Chong
Email: cem@ntu.edu.sg
Phone: +65 69081940
Address: S3-B1A-35 Nanyang Business School
Nanyang Technological University
50 Nanyang Avenue
Singapore 639798

