EXPORT PROCESSING ZONES AND INDUSTRIALIZATION: THE TANZANIAN EXPERIENCE

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Abstract

This paper examined the effectiveness of the Export Processing Zones (EPZs) model as a policy option for industrialization in Tanzania. This understanding was important since EPZs were one of the main tools of industrialization utilised by the East Asian countries. Following success stories registered by these countries, many countries introduced and promoted EPZs as an economic policy model to accelerate industrialization. Although EPZs have been seen as a quick and efficient means to accelerate industrialization, the experience throughout the world shows that they have not been uniformly successful. Moreover, the study was necessary because it is doubtful whether EPZs designed purely under the tenet of neoliberal policies can be effective in industrialising the country. Data were analysed using descriptive statistical analysis, trend analysis, and comparative analysis of EPZ performance indicators based on secondary data and firm-level survey responses. The results established that EPZ as a policy tool to foster industrialization in Tanzania has been less effective.

Between 2006 and 2022, the programme attracted 173 firms, generated a cumulative investment of US$1.64 billion, and created about 69,108 jobs (around 4% of FDI-generated employment nationally), while exports and domestic linkages remain limited, with roughly 60% of firms relying entirely on imported inputs. The paper contributes to the debate on EPZ and industrial policy literature by questioning the neoliberal free market assumption and recommends a hybrid EPZ framework that integrates key elements of the East Asian model, emphasising a more interventionist approach by the state in directing EPZ development.

Keywords: *Export Processing Zones, Export-led industrialization, Foreign Direct Investment, Industrialization, Neoliberalism*

1.0 INTRODUCTION

There are many different approaches to industrialization, each offering its perspective on how industrialization may be initiated, sustained and the role of state.in this process. Many countries have introduced or are in the process of introducing Export Processing Zones (EPZs) as a means of developing the industrial sector (Farole, 2010; Naseemullah, 2023). EPZs are often seen as a quick and efficient way means to accelerate industrialization through attracting Foreign Direct Investment (FDI) that would not otherwise materialize. As such, EPZs promote exports, generate employment, and enhance the host country's foreign exchange earnings. Additionally, they are expected to provide indirect benefits through backward linkages with the domestic economy, as well as technology transfers and spillover effects (World Bank, 1992; Madani, 1999; Milberg & Amengual, 2008; Farole & Akinci, 2011). EPZs were among the main tools of industrialization utilized by the Asian Tigers (Taiwan, South Korea, Hong Kong & Singapore) and the Tiger Cubs (Indonesia, Malaysia, Thailand, and the Philippines) (Alarakhia, 2012). As a result of the Asian Tigers and Tiger Curb successes, EPZs have since then been promoted as economic policy model to accelerate industrialization in many developing countries including Tanzania (Farole, 2010; Naseemullah, 2023).

Like many other developing countries, Tanzania was compelled by International Financial Institutions (IFIs) as well as bilateral and multilateral donors to liberalize its economy and deregulate its markets throughout the 1980s and as part of its commitments to the neoliberal reforms, became more reliant on export oriented FDI as a strategy for industrialization (Alarakhia, 2012). With the vision of achieving

industrialization through an export -led strategy - as in the case of Asian Tigers, and demonstrating compliance with the neoliberal economic policies (reforms), the Tanzanian government adopted the EPZ as a policy option for export-oriented industrialization and economic development in 2002, following the enactment of the EPZ Act in the same year, and took off in 2006 (Alarakhia, 2012). Although the shift was influenced by the pressure from the IFIs to accept neoliberal reforms, the underlying idea was to emulate the rapid industrialization achieved by the Asian countries through the use of EPZs (Newman & Page, 2017).

The Tanzanian EPZ programme has its background in the goals envisaged in 'Tanzania Development Vision 2025' formulated in 1995. The Development Vision 2025 set out long-term development goals and perspectives for which, different strategies for economic growth and poverty eradication were formulated (URT, 2003; Alarakhia, 2012). The EPZ programme is among the strategies implemented as part of the country's vision 2025 that envisions fostering development and fighting poverty through semi-industrialization strategies, drawing on the Asian Model of export-oriented development. It is envisioned that through the establishment of EPZs, Tanzania can replicate the success of the Asian Tigers and achieve an equivalent level of industrialization by 2025 (URT, 2003; Alarakhia, 2012).

After about more than a decade and half of the Tanzanian EPZ existence it is judicious to examine the impacts, it has as a policy tool to industrialize the country. While much has been written in the literature about effectiveness of EPZ model in promoting economic growth, what remains unexplored, is

whether and to what extent the export-led growth and EPZ policies promoted by neoliberals have been effective in industrializing the country. This study seeks to address this gap of knowledge. Specifically, this paper aims to examine how effective the EPZ model has been as a policy option for industrialization in Tanzania. The findings of the study are expected to contribute to the existing knowledge by providing additional insights relevant to the understanding of whether the EPZs, designed along neoliberal policies are effective in achieving the industrialization goal. In addition, it offers evidence that can assist policy makers in evaluating successes of the EPZ model and identify the necessary government interventions for effective working of EPZ and or even thinking of an alternative to the current EPZ model.

Following this introduction, section two presents a brief review of literature which informs the study; Section three summarizes materials and methods used in conducting the study. Section four presents and discusses the findings, and chapter five concludes the study.

1.0 LITERATURE REVIEW

There are many approaches to industrialization Governmental and Neoliberal thinkings seem to dominate the discussion each, each explaining how industrialization may be initiated, sustained and the role of state in the process. While the Developmental state argues that for industrialization to occur the government (developmental state) should be limited to establishing a system where imports are limited and local industries are developed in their place, the neoliberal thinking argue that the state should not intervene in this process at all, rather it should leave the process to market-forces to let the

industrialization to occur 'naturally' (Hathaway, 2020; Naseemullah, 2023). The proponents of the developmental state argue governments need to play a directive role to control and guide investments, nurture and support industrial upgrading for a strong industrial sector to develop in the economy (Alarakhia, 2012; Tolkachev & Teplyakov, 2022; Breznitz & Gingrich, 2025), thus emphasizing on interventionist and strategic role of government in guiding industrial development. The neoliberal thinking on the other hand prioritizes the market-led distribution of resources in the economy with limited government intervention and does not allow any form of intervention in the market operations (Hathaway, 2020; Naseemullah, 2023).

In both history and economic theory, industrialization is widely recognized as the main engine of economic growth and development (UNCTAD, 2016). Historical facts reveal that most of the countries that are today developed attained that status in large part through a process of industrialization. The rapid economic growth of the Asian tiger economies is often used to illustrate the importance of industrialization (Palley, 2011; Guadagno, 2016). Industrialization is particularly associated with the development of the economies of the Asian tigers: Hong Kong, South Korea, Taiwan and Singapore (Mendes *et al.,* 2014).

The role played by the industrialization process in furthering economic development goals has been extensively studied in the literature. To a large extent, the arguments presented in the literature evolve around the Kaldor's (1966) seminal contribution on the role of manufacturing (industry) as a potential engine of growth (UNIDO & UNCTAD, 2011; Ciarli

& Di Maio,2013; UNIDO, 2013; Guadagno, 2016; UNCTAD, 2016). Based on Kaldor's (1966) view, the capacity to generate dynamic increasing returns and thereby enhance productivity through expanded production lies at the core of industrial sector, especially through manufacturing (Lavopa & Szirmai, 2012); and the sector has consistently been regarded as the main driver of productivity growth.

Compared to other sectors of the economy, the manufacturing (industrial) sector offers greater opportunities for capital accumulation, exploitation of economies of scale, generation of productivity and income growth, development of linkages with the rest of the economy, and expansion of exports thereby alleviating balance of payment constrains, and importantly, it is considered to have higher potential for innovation, technological learning and knowledge spillovers (UNIDO & UNCTAD, 2011; Andreoni 2013; Andreoni & Gregory, 2013; Ciarli & Di Maio, 2013; UNIDO, 2011; Guadagno, 2016; UNCTAD, 2016). For developing countries aiming to maintain growth while creating sustainable jobs, manufacturing offers a relatively wide employment base with higher labour productivity relative to other sectors (UNIDO, 2013). In order to locate and understand the context within which an EPZ strategy as a policy tool to promote industrialization emerged, it was important to review briefly the literature on the two broad strategies of industrialization commonly pursued by developing countries in quest for development (Tolkachev & Teplyakov, 2022): Import Substitution Industrialization and Export Led Industrialization.

Import substituting industrialization strategy which replaces the importation of the commodity by the production in the

domestic market was widely adopted by many developing countries as their development strategy before the 1980s (Krugman & Obstfeld, 2006; Tolkachev & Teplyakov, 2022). Export-led growth strategy is envisioned on the liberalization of the trade and industrialization regime, the stimulation of labour-intensive export-oriented industries and the attraction of foreign capital in the export sector (Linnemann, Van Dijck, & Verbruggen, 1987; Tolkachev & Teplyakov, 2022). While the Import substituting industrialization strategy produced mixed results, as many countries experienced inefficient industries, limited competitiveness, and heavy reliance on state protection, the spectacular economic growth and development from the four Asian Tigers' economies that pursued an alternative strategy from the 1960s, demonstrated the effectiveness of export-oriented industrialization strategy, which emphasized integration into global markets and competitiveness in international trade (Krugman & Obstfeld, 2006; Virgill, 2009; Alarakhia, 2012; Vastveit, 2013). The varied outcomes of the import substituting industrialization and its counterpart, resulted into many governments in developing economies to revisit the effectiveness of inward-looking development strategies. As a result, these countries shifted toward export-led growth strategies, viewing them as a more viable pathway for industrialization and economic expansion.

As stated elsewhere, EPZs is one of the most widely used policy instruments for implementing this strategy. Theoretical justification on why export-led industrialization, and by extension EPZs, is a better strategy for economic growth and development compared to ISI strategy is based on the knowledge from the studies on comparative advantage (Palley, 2011; Inotai, 2013). The theoretical basis is further

strengthened by the Heckscher-Ohlin Samuelson (HOS) theory of international trade (Palley, 2011). Influential contribution also comes from the innovation-led growth theory developed by Schumpeter and the product-cycle approach, including capital relocation by Vernon (Inotai, 2013). Within these theoretical frameworks, EPZs serve as policy tool through which developing countries attempt to attract export-oriented FDI, facilitate technology transfer, and integrate their economies into global production networks.

Although policy instruments to promote export - led growth strategy are not necessarily limited to export processing zones, EPZs have emerged as one of the primary policy instruments for implementing the export-led industrialization. The literature suggests that several developing countries, including Tanzania, Ethiopia, Morocco, Ghana, and South Africa have attempted to industrialize through implementation of an EPZ strategy (Rodríguez‑Pose, et al., 2022; Danja & Wang, 2024).

Nevertheless, despite the theoretical strengths of EPZs as a tool for industrialization and high- profile success stories like the Asian Tigers, EPZs have a decidedly mixed record (Farole & Moberg, 2017). Despite the widespread adoption of the EPZ strategy in developing countries, some studies have shown that the implementation of EPZs under their current formulation, in which this strategy is implemented as a tenet of, and in line with neoliberal prescriptions have not promoted the kind of industrial transformation that they are allegedly designed to promote (Amsden, 2001; Alarakhia, 2012; Stein, 2012). This paper is an attempt to understand Tanzanian EPZ experience with a view of concluding on its effectiveness as a policy tool to industrialize the country.

3.0 MATERIALS AND METHODS

The research employed the multiple methods research design combining quantitative and qualitative approaches (Teddlie & Tashakkori, 2009). The analysis was based on data collected through document review and questionnaires. For documentary review, a number of secondary sources, including EPZ performance reports, audited EPZA reports, economic surveys, national accounts, and international investment reports, covering the study period were used. For the purpose of primary data, a purposive sample of 20 companies operating under the EPZ scheme was selected, with 30 questionnaires distributed and 20 valid responses analyzed. Combining documentary analysis and questionnaire data was essential because the effectiveness of EPZs as a policy tool cannot be adequately assessed using a single data source (Teddlie & Tashakkori, 2009; Morgan, 2013). Documentary analysis provided quantitative evidence on investment, exports, employment, and performance trends, while the questionnaire generated qualitative and perception-based evidence on backward linkages, sourcing patterns, and knowledge spillovers that are not captured in secondary statistics. The combination of methods enabled triangulation and strengthened the validity of the findings.

The study employed the analytical framework proposed by Gibbon et al. (2008) to assess the contribution of Export Processing Zones (EPZs) to industrialization. The framework evaluates EPZ performance based on policy objectives commonly associated with their establishment, including the attraction of FDI, employment creation, and the expansion and diversification of exports. These indicators were used as key

evaluation criteria for assessing the effectiveness of the EPZ model. In addition, the framework considers indirect developmental effects such as technology transfer, skills diffusion, and industrial linkages between EPZ firms and the domestic economy. The study operationalized these criteria by analyzing data on FDI inflows, employment levels, export performance, and evidence of technological and knowledge spillovers associated with EPZ operations.

RESULTS AND DISCUSSION

4.1 Effectiveness of EPZ model as a policy option for industrialization in Tanzania

4.1.1 Growth pattern of companies invested in EPZs

Tanzania's EPZ programme effectively took off in 2006 after the amendment of the original EPZ Act in 2002, and with the establishment of Tanzania's Export Processing Zones Authority (EPZA), as an autonomous government agency. Since then, 24 designated EPZs have been established in different locations, as summarized in Table 1.

Table 1: Distribution and status of EPZs in Tanzania

Zone / Industrial Park	Region	Ownership / Type	Operational Status
Hifadhi SEZ	Dar es Salaam	Industrial Park	Not specified
Benjamin William Mkapa SEZ	Dar es Salaam	Government Industrial Park	Operational
Kurasini SEZ	Dar es Salaam	Industrial Park	Under Development
Kigamboni SEZ	Dar es Salaam	Industrial Park	Under Development
Star City SEZ	Morogoro	Industrial Park	Not specified

Zone / Industrial Park	Region	Ownership / Type	Operational Status
Kamal Industrial Estate EPZ	Coast	Private Industrial Park	Not specified
Vigor SEZ	Coast	Private Industrial Park	Not specified
Kilwa SEZ	Coast	Industrial Park	Under Development
Ming Xin Company Limited	Coast	Private Industrial Park	Not specified
Heritage Empire Co. Ltd (Kaboja Industrial City)	Coast	Private Industrial Park	Not specified
Global Industrial Park	Coast	Private Industrial Park	Not specified
Manyoni SEZ	Singida	Industrial Park	Under Development
Nyamhongoro SEZ	Mwanza	Industrial Park	Under Development
Nyaishimbi SEZ	Shinyanga	Industrial Park	Not specified
Kisongo EPZ	Arusha	Industrial Park	Not specified
Mkinga SEZ	Tanga	Industrial Park	Under Development
Margnis Technologies (Nachu SEZ)	Lindi	Industrial Park	Not specified
Bagamoyo SEZ	Coast	Industrial Park	Under Development
Mtwara SEZ	Mtwara	Industrial Park	Under Development
Kigoma SEZ	Kigoma	Industrial Park	Under Development
Tanga SEZ	Tanga	Industrial Park	Under Development
Bunda – Mara SEZ	Mara	Industrial Park	Under Development
Manyara SEZ	Manyara	Industrial Park	Under Development

Source: *EPZA various annual performance reports*

In total, there were 173 licensed companies under the EPZ initiative by 2021/2022. Out of these, 52 companies are operating as single factory units, located outside the EPZs industrial parks (enclaves) but operating under the license of EPZs. Table 2 summarizes the key indicators of the EPZ programme.

Table 2: Summary indicators

Indicator	Number
Total designated EPZs/SEZs	24
Privately owned industrial parks	10
Government-owned industrial parks	1
Operational zones	6
Zones under preliminary development	14
Non-operational zones	3
Licensed companies (2021/2022)	173
Single factory units outside enclaves	52

Source: *EPZA various annual performance reports*

From the analysis it became apparent that for the past 16 years the EPZ programme in Tanzania has managed to attract only 173 companies. This level of investment appears modest rather than transformative considering the financial resources invested in the scheme and the high expectations placed on EPZs as instruments for export-oriented industrialization. Interpreted through the developmental and structuralist industrialization framework (Amsden, 2001; UNCTAD, 2016), this weak firm entry and limited scale of investment reflect the absence of

coordinated state action to strategically guide and discipline investment toward priority sectors. Unlike the Asian Tigers, where EPZs were embedded within broader national industrial strategies and closely linked to domestic firms, Tanzania's EPZs have largely operated as isolated enclaves, consistent with a neoliberal policy orientation that limits state coordination (intervention) and targeting. When compared with other African countries, Tanzania's EPZ experience appears to be consistent with that of most African zones, with a few exceptions, for example, Mauritius and, to a limited initial extent, Kenya, Madagascar, and Lesotho, who have had some success (Farole and Moberg, 2017).

4.1.2 Effectiveness of EPZ model in attracting investment, job creation and export performance

4.1.2.1 Trend of FDI inflow in Tanzania

The study examined the performance and contribution of EPZ model as a policy option for industrialization for the period from 2006/2007 to 2021/2022. The results demonstrate that, cumulative investment stood at US$ 1,642 million by the end of the financial year 2021/2022 (Figure 1). From this statistic, it is apparent that even though the vision that led to the introduction of the EPZ initiative was to industrialize the country by attracting FDI and its benefits, the Tanzanian EPZ model has been relatively unsuccessful in attracting the FDI. Analysis of annual growth rate as well as cumulative growth rate from Figure 1 reveals that although FDI inflows are recorded, the extent of inflows is less impressive.

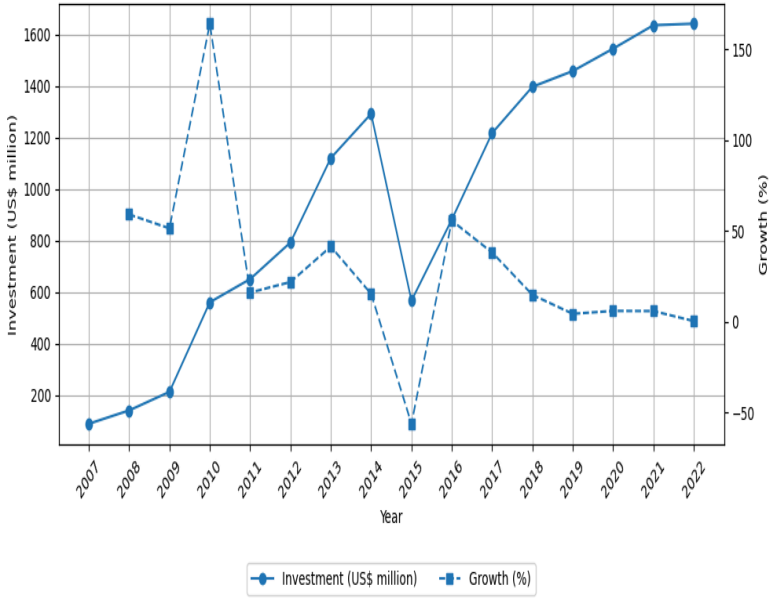

Figure 1: Trends in EPZ investment in Tanzania, 2007–2022 (US$ million)

This outcome aligns with earlier findings in the literature that EPZs implemented under liberalized and incentive-heavy regimes, that is, under neoliberal approach, without complementary industrial policies, tend to attract footloose and low-commitment FDI (Farole, 2010; Stein, 2012). In contrast, Asian Tiger economies combined selective incentives with performance requirements, export discipline, and investment screening, which enhanced both the quantity and quality of FDI inflows.

The share of FDI brought through EPZ scheme to the overall FDI countrywide further signifies that Tanzanian EPZ model has been struggling as a policy tool to industrialize the country.

Compared to FDI inflows to Tanzania (all sectors) from 2008-2022 (Figure 2), the contribution of EPZ initiative to the country's FDI inflows is insignificant. The figure shows fluctuations in foreign direct investment inflows over the period, with notable peaks in 2010 and 2013 and significant contractions in 2009, 2011, and 2016. Growth rates display considerable volatility, reflecting the sensitivity of FDI inflows to global and domestic economic conditions.

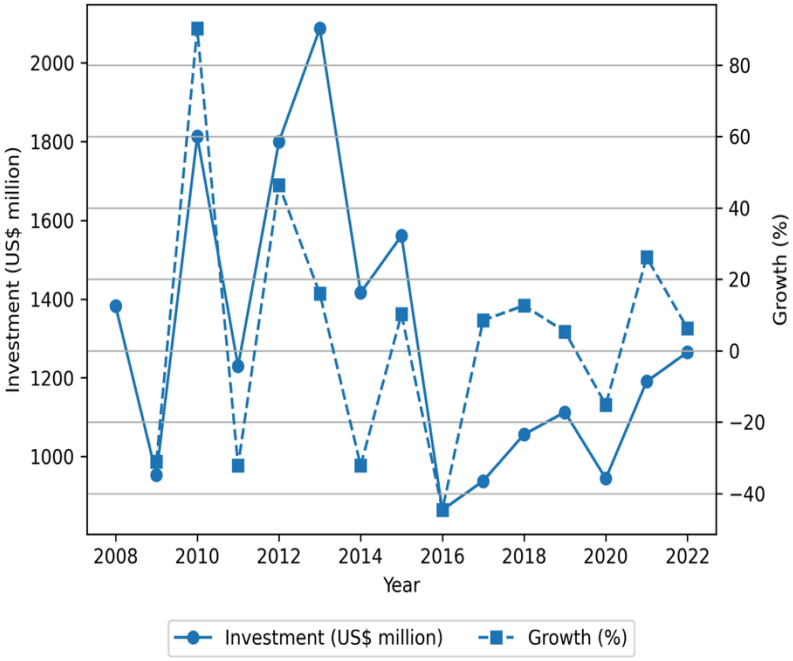

Figure 2: FDI Inflow performance country wide

The performance trend shown in Figure 1 and Figure 2 suggests that the contribution of EPZ as a tool to attract FDI is not

sufficient enough to justify the view that this model has satisfactorily emulated success reported elsewhere.

4.1.2.2 Trend of employment creation and exports

As noted in the preceding literature review, job creation is one of the key indicators used to assess the impact of EPZ initiative. Data on the employment impact of EPZs in Tanzania (in Figure 3) show that, at the end of financial year 2021/2022, about 69,108 people were employed in all EPZs industrial areas and single factory units. The growth rate is uneven although the general tendency depicts less promising pattern. A comparative analysis of the findings reported in Figure 3 against jobs created through FDI countrywide indicate that jobs created by EPZ activity are equivalent to 4% of all jobs created over the same period by all FDI in the country. This confirmed previous research which showed that contrary to expectations EPZs do not play a substantial role in overall employment in most African countries. Likewise, as can be appreciated Figure 3, the export impact of EPZs is less impressive.

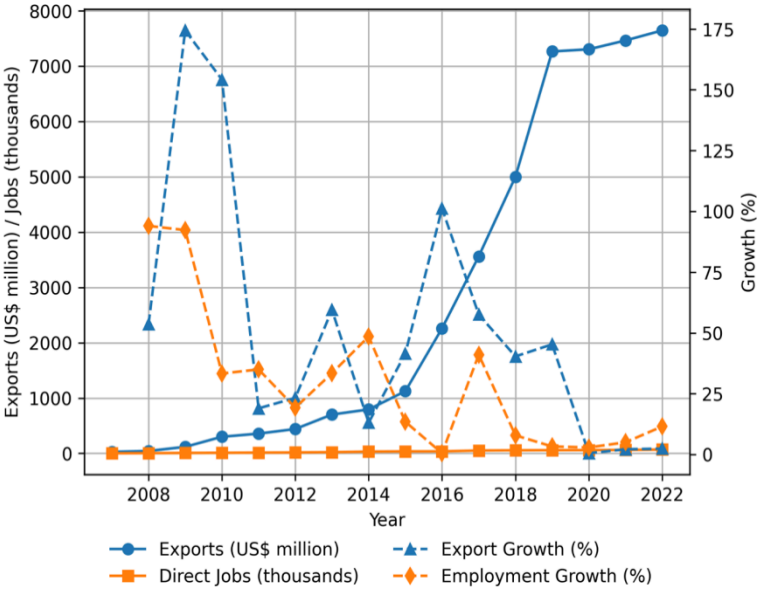

Figure 3: Exports, employment creation, and growth trends in Tanzania's EPZs, 2007–2022

Export performance was also examined in terms of Tanzania's participation in the AGOA market. This was considered an important measure of export performance provided that, it was a guaranteed market access. As can be seen in Figure 4, Tanzania export share is substantially lower as compared to other AGOA signatories. The results suggest that Tanzanian EPZ model has been less successful in industrializing the country through export channel.

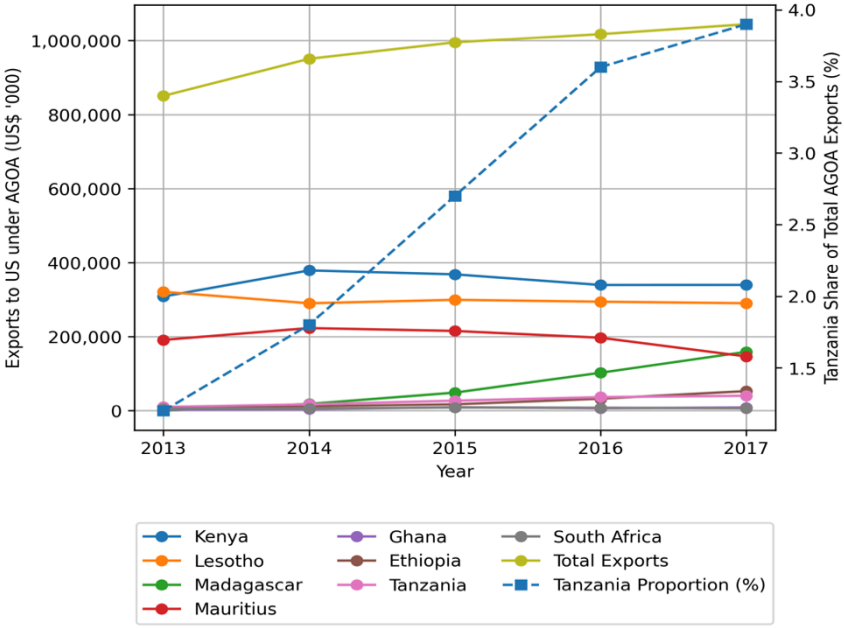

Figure 4: Exports to the USA under the AGOA by selected African countries, 2013–2017

Tanzania's EPZ export performance initially (between 2007 and 2017) grew rapidly but has slowed significantly in later years notably from 2019 indicating limited sustainability and competitiveness. The country lags behind peers due to weak backward linkages, low value addition, and limited industrial diversification within the zones. Constraints such as inadequate infrastructure, policy gaps, and underutilization of guaranteed markets like the AGOA, further restrict export growth. Additionally, skill shortages and low productivity in labour-intensive activities have hindered the EPZs' ability to

contribute effectively to industrialization through AGOA market. Comprehensive and consistently comparable data extending to 2022 across countries were not readily available from reliable sources. However, Tanzania's AGOA export performance data up to 2022 were obtained from the source namely Office of the U.S. Trade Representative (USTR). Tanzania's AGOA export trend is presented in Table 3.

Table 3: Tanzania's AGOA export performance, 2018 -2022 (USD Million)

	2018	2019	2020	2021	2022
Tanzania	42	43	40.8	42.8	55.3

Source: *USTR data*

The export performance presented in Table 3 shows that there is a gradual but modest upward trend, indicating some improvement in market usage while remaining relatively low and unstable compared to peer countries, which suggests limited competitiveness and export capacity. Generally, the findings presented in Figure 1 to 4 and Table 3 indicate that the EPZ model has had limited success so far. The value of actual investment, the number of jobs created, and the value of exports are rather small, and do not indicate that the EPZ initiative has been effective in fostering industrialization.

4.1.3 Effectiveness in promoting backward linkages, the transfer of technology and knowledge

4.1.3.1 Backward linkage

Ideally, strong backward linkage with domestic economy stimulates industrialization. As noted in section 3 (materials and methods), the purpose of the questionnaire was to investigate the existence of linkage and spill-over effects and

their transmission mechanisms from EPZ firms to domestic firms. The aim was to determine whether and the extent to which Tanzanian EPZs have been effective in promoting backward linkages. Literature has shown that backward linkages exist when there is purchase of inputs from domestic markets and subcontracting by EPZ enterprises. Thus, backward linkage is created when local firms supply raw materials, intermediate inputs, or services to the firms in EPZ. Three aspects were explored to determine the presence of, and the extent of backward linkage: sourcing patterns, other relationships with local suppliers, and import regulation.

To gain an impression of the development of backward linkages, respondents (EPZ firms) were asked to indicate their input sources, the type of production inputs, and the extent of local content in the production. They were also required to report whether they assist local suppliers and whether there are any import restrictions. Respondents were also required to report their views on why they import production input. The discussion in the literature review illustrated that the potential for backward linkage formation is dependent on the import intensive nature of EPZ production (Amirahmadi & Wu, 1995; Jenkins, 2006; Alarakhia, 2012; Vastveit, 2013). The literature review has also demonstrated that in the absence of import 'restrictions', the potential for outsourcing from the local economy is low given that EPZ imports are duty-free.

Table 4 summarizes information about sourcing patterns, other relationships with local suppliers, and import regulation in the Tanzanian EPZ regime. Results show that, the minority of firms in EPZs (40%) have a direct relationship with the domestic economy in terms of sourcing production inputs from local

suppliers. Majority of respondents (60%) reported that they imported all their inputs. This was not expected given the high rate of agro-processing activity in EPZs. It was expected that, EPZ firms could use raw materials available in the host country to boost the market of agro - products produced by majority of Tanzanians who are farmers.

None of the respondents reported subcontracting relationships or any other linkage relationships. The absence of subcontracting relationship was expected given low level of industrialization in the domestic economy and import-based manufacturing in EPZs motivated by privilege of duty-free importation of inputs by EPZ firms. In addition, the results indicate that all surveyed EPZ firms are free from import restrictions. Only a small proportion, usually agro-based firms are subjected to import restrictions. These firms are basically involved in processing pulse-based products. The raw materials for this type of activity are locally sufficient. Furthermore, only a few firms in the sample (about 15%) aided their local suppliers, especially in the aspect of quality control.

From a structuralist perspective, the limited backward linkages observed are a direct outcome of weak domestic productive capabilities combined with the absence of enforceable local content requirements. While Asian Tiger economies used EPZs as instruments to deliberately nurture domestic supplier networks through targeted procurement rules, supplier upgrading programmes, and state-led coordination, Tanzania's EPZ regime provides unrestricted duty-free access to imported inputs, thereby reducing incentives for firms to engage local suppliers. This policy design reinforces enclave-type

production and constrains the diffusion of industrial benefits into the domestic economy**.**

Table 4: Existence of backward linkage and its transmission mechanisms

Item	N	Category [Yes]	Category [No]
Extent of local sourcing	20	5(25%)	15(75%)
Sourcing of direct raw material from local suppliers	20	5(25%)	15(75%)
Imports are always used	20	15(75%)	-
Often usage of import (if both sources are used)	20	2(10%)	-
Usage of import not often (if both sources are used)	20	3(15%)	-
Import restrictions	20	4 (20%)	16(80%)
Assistance to local suppliers	20	3(15%)	1 (5%)

Respondents were also required to explain why they imported inputs. This was an open-ended question which aimed at enhancing understanding about the obstacles to the formation of backward linkages. The general theme emerging from the analysis of the responses indicates that firms surveyed use imported materials entirely as the type of production input needed is not locally available. Almost all firms which often use imported material reported the unavailability of quality inputs domestically as the major reason. It was also revealed that firms were motivated by quality of the imported materials. Prices and difficulties in terms of transportation and other related logistics were also mentioned as influential factors. Overall, analysis indicates that the decision to use imported input is generally based on availability and quality issues.

These findings are consistent with prior studies (Amsden, 2001; Farole & Akinci, 2011; Alarakhia, 2012) which emphasise that

without deliberate state intervention to upgrade local firms, market forces alone are insufficient to generate meaningful backward linkages, particularly in low-industrialized economies.

4.1.3.2 Knowledge transfer through training and learning by doing

Effectiveness of the EPZ model as a tool to facilitate industrialization was also assessed through the extent to which transfer of knowledge from EPZ firms to domestic firms has taken place. To ascertain whether skills upgrading exists, respondents were asked to indicate the preferred level of skills in their operations and whether they offer training. The literature review illustrated that the presence of training programme serves to indicate how a previously unskilled labour force has become semi-skilled and skilled through training and learning-by-doing. The literature review points out that the expected knowledge would be transferred through human capital only if skills acquisition and transfer take place. In this way, managerial knowledge and labour skills will spread to the local population when recruited labour, especially for the positions in management, professional tasks, research and development, leave the foreign firms in the EPZs and join or establish local firms (Jenkins, Esquivel, & Larrain, 1998; Madani, 1999; Alarakhia, 2012). To explore whether this has taken place, respondents were asked to indicate their experience of the movement of workers, between EPZ firms, and then, from EPZ firms to local firms.

As can be seen Table 5, all EPZ firms surveyed provide training to employees at various levels and through different methods. Nearly half of the firms surveyed (about 40%) provide the basic

skills needed to perform the basic job, mostly production floor activities; 30% provide technical and skills training mostly specialized in operating the machines; 10% provide training in advanced production skills. Interestingly, there are also modest training opportunities at the managerial level (20%).

Table 5: Training type, method, and duration

Category	Frequency			
Type of training	*Basic* 8(40%)	*Technical* 6(30.0%)	*Advanced* 2(10.0%)	*Management* 4(20.0%)
Training method	*On job* 20 (100%)	*College* 0(0.0%)	*Seminars, exhibitions, workshops* 3(15%)	*Overseas* 1(5%)
Training duration	*1 week* 3(15%)	*2-3 weeks* 16(80%)	*1 month* 1(5%)	

All firms surveyed conduct on-job training (100 %) and have a substantial training duration of 2-3 weeks (80%). Additionally, 15% of the surveyed firms train their employees through seminars and workshops whereas a few firms (5%) provide overseas training programs.

Overall, the analysis indicates that training has taken place in all surveyed EPZ firms. As can be appreciated from the preceding analysis, EPZ employees mainly benefit from basic skills through on-the-job training. Training duration, on average, is between 2 to 3 weeks. These results are consistent with previous research, as demonstrated in the literature review, which contends that most EPZ production processes are low tech, which require few industrial skills. Hence, the learning process is not necessarily extended beyond basic learning and

training. Previous observations that EPZ workers acquire the necessary expertise to perform specific job during the first few years of their employment, usually the first few months, finds some support in the present paper.

Interpreted comparatively, it appears that while the presence of training suggests some human capital formation, its limited depth reflects the dominance of low-technology production processes, a pattern commonly associated with EPZs operating under neoliberal regimes. In contrast, the Asian Tigers actively promoted skills upgrading and technological learning through coordinated education-industry linkages and state-supported capability building, enabling EPZs to serve as platforms for industrial upgrading rather than merely employment generation.

4.1.3.3 Skills transfer through movement of workers

Given that the movement of workers (labour turnover) from EPZ firms to domestic firms is a necessary condition for effective diffusion of skills, respondents were asked to express their experience on the movement of trained EPZ workers between EPZ firms and most important, from EPZ firms to local firms. The literature review revealed that the skills acquired through on-the-job training and learning-by-doing are said to diffuse or transfer to the domestic economy if there is labour movement. Skills transfer through labour movement occurs when trained or high skilled employees move from a foreign invested firm to locally controlled firm or open (start) own firms.

Table 6 shows that about 5% of the EPZ firms surveyed have experienced movement of workers within themselves, and the tendency is not often (10%). A substantial number of firms

(65%) did not have knowledge of whether such movement has taken place. Only around 5 percent of EPZ firms have experienced movement of workers to domestic firms outside EPZs. Perhaps low-tech skills and specialized skills needed hinders their potentialities to work in a different company.

Table 6: Labour turnover rates

Category	Between EPZ firms	From EPZ firms to non EPZ local firms
Yes	1(5%)	1(5%)
No	13(65%)	17(85%)
Don't know	6(30%)	2(10%)
Total	**20 (100%)**	**20 (100%)**

In summary, in all aspects analyzed, the Tanzanian EPZ initiative has registered limited success. The amount of actual investment, the number of jobs created, and exports generated are rather small and do not justify the conclusion that the Tanzanian EPZ initiative is a success. Besides, the extent of backward linkage formation is limited and therefore, the contribution of domestic economy through local entrepreneurs to the process of industrialization is also limited.

Overall, the Tanzanian EPZ experience reinforces the argument advanced in the literature that EPZs implemented within a predominantly neoliberal policy framework, characterized by minimal state intervention and weak regulatory instruments, are unlikely to catalyse structural transformation. The contrast with the Asian Tigers underscores that EPZ effectiveness is contingent not on incentive alone, but on the presence of an active developmental state capable of enforcing performance

requirements, fostering domestic linkages, and strategically aligning EPZs with national industrial objectives.

5.0 CONCLUSION AND RECOMMENDATIONS

This paper examined the effectiveness of the EPZ model as a policy option for industrialization in Tanzania. This was important given that despite the theoretical strengths of EPZs as a tool for industrialization and high- profile success stories like Asian Tigers, EPZs throughout the world have mixed records. Further to this, it is doubtful whether EPZs designed purely along neoliberal policies can be effective in addressing the industrialization goal they are purportedly designed to promote. The results of this study established that Tanzanian EPZ as a policy tool to foster industrialization has been less effective. The amount of actual investment, the number of jobs created, and exports generated are rather small and do not justify sufficiently the view that the EPZ initiative is a success, as such, the model has been of limited success. Besides, backward linkage developed so far is limited and for this reason the contribution of domestic sector to the development of industrial sector is also limited.

Arguably, the evidence from these policy measures does not support strongly that the EPZ initiative has been effective in industrializing the country. In view of this, the paper recommends modification of the current EPZ model and let it allows government interventions to a greater degree, as discussed in the subsequent paragraph. It seems that although Tanzania aimed at emulating the Asian countries success in industrializing using EPZs, the government does not play active

role following introduction of EPZ under the tenet of neoliberal policies. Contrary to the Asian Tigers EPZ model where the governments played a very active role in regulating and directing when using EPZs, Tanzanian EPZ initiative has emerged under a neoliberal approach that requires the government to play very minimum role in economic activity and allow the natural market forces to operate. As a result of this, these EPZs have failed to contribute substantially to the industrial development.

The interventions implied by the study are primarily regulatory and structural rather than additional tax incentives. The findings show that backward linkages have remained limited largely because EPZ firms rely heavily on imported inputs in the absence of effective and enforceable local content requirements. Therefore, a key intervention required is stronger government regulation of local content, including clearer and stricter rules mandating local sourcing where inputs are available domestically, accompanied by monitoring and enforcement mechanisms. In addition, the study suggests a shift in policy emphasis away from excessive reliance on tax incentives toward non-tax fundamentals, such as infrastructure development, quality upgrading of local suppliers, logistics, standards compliance, and institutional coordination, which are necessary to make domestic firms competitive suppliers to EPZ enterprises. Overall, the evidence supports the need for a more active and directive state role that prioritizes regulatory clarity, supplier development, and industrial capability building to foster meaningful backward linkages.

There are reasons to agree that market forces do not always work naturally; some regulations are necessary. Consequently, it is reasonable time to develop a context-based model which

allows interventions through various industrial policies that will tailor the EPZ programme to develop domestic industries and to ensure that the benefits of having FDI accrue considerably. Therefore, this paper calls for an urgent government intervention to re-consider modifying current EPZ model and introduce a hybrid kind of model which allow reasonable government interventions. The proposed model should provide for government to engage actively through development of policies and regulations aimed at developing industrial sector. The policies and regulations though expected to be fair, should favour the host countries most. The proposed government interventions include, among others, the enforcement of local content requirements, implementation of supplier development and upgrading programmes, targeted infrastructure investments within and around EPZs, and labour skills development initiatives. These measures are intended to strengthen domestic productive capacity, enhance backward linkages, and ensure that the benefits of FDI are more effectively embedded in the local economy Tanzania's industrial policy must therefore shift towards a more interventionist and development-oriented framework that prioritizes non-tax fundamentals, enforces effective local content requirements, strengthens domestic productive capacities, and strategically integrates EPZs with the local economy in order to achieve sustainable industrialization and meaningful structural transformation. This recommendation draws partly from evidence available elsewhere which suggests that success in industrializing using EPZs is reported mainly in countries where the governments played a very active role in regulating and directing when using EPZs.

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