

Special Economic Zones (SEZs) Establishments: Lessons from International experiences for South Africa

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Abstract

For the past decade, there has been a massive development of Special Economic Zones (SEZs) in the world and South Africa. The increase in the number of SEZs has not impacted the integration of the South Africa Development Community (SADC) as witnessed in Asia. Why other regions leverage on SEZs as a tool for regional integration, South Africa and Africa are not doing the same. This paper examines the literature review through the conceptual synopsis and the used qualitative analysis statistical method tool to reveal the data needed. Its qualitative methodology reveals the information on SEZ experiences of developed, developing, transitional, Africa, South Africa and current trends. In exploring the experiences, gaps are identified and new knowledge is developed on leveraging SEZs as a catalyst for integration of a regional bloc (South African Development Community). The paper evaluates SEZ experiences in order to find ideas for integration of South African Development Community (SADC) that could lead to free flow of goods and services. The experience highlights that South Africa SEZs do not consider regional bloc integration through their SEZ plans and establishments. This could be aligned to weak strategies and policy developments. The examination of the experiences also broadens the knowledge of SEZ infrastructural planners, and managers in SADC to begin to treat SEZs' knowledge as they treat any other infrastructure and economic element of the urban realm. It calls for a shift from the current "plan-demanded" mode of segregated SEZ for country's development to regional block integration for the benefits of sustainable development.

Keywords

Special Economic Zone, Integration, Transportation, Region, Infrastructure and Strategies.

1. Introduction

Special economic zones have become a tool for economic development of many countries. Despite using it as a tool, there have been challenges in leveraging SEZ as a tool in South Africa for regional integration. Therefore, this paper interrogated the SEZs international development experiences to identify factors that made them successful than that of South Africa. The purpose is to categorize the necessary information and data that could be leveraged for South Africa SEZs that will lead to regional integration. The evaluation of the special economic zones experiences assist in demonstrating the desirability of reliable, specific, up-to-date SEZ data for integration of South Africa. The significance is to identify trends in developed countries, transitional countries and developing countries that relate to regional integration. The challenges in South Africa SEZs establishments are inability to integrate regionally and attract the needed foreign direct investments (FDI) as envisaged. The primary factor is to focus on data that would influence SEZ for regional integration. International experiences are explored to identify important elements of SEZ regional integration. In doing this, the plan is to start from the literature reviews. Then the SEZs experience forms part of the foundation upon which SEZ is viewed and analyzed for regional integration.

1.1 Objectives

1. Examination of international SEZ experiences
2. Identification of South Africa SEZs gaps through the examination of experiences for future SEZs sustainable development for integration of SADC

2. Conceptual synopsis

The first modern zone is said to have been established in Brooklyn, New York's Navy Yard, in 1937 (CIIP 2017, p.11). Asia Development Bank (ADB) states that the second zone established was in Puerto Rico in 1942 to industrialise the territory by luring US firms (ADB 2015). Woolfrey (2013) highlights that modern zones can be traced back to the late 1950s and the establishment of the Shannon Free Zone that combined the attributes of a Free Trade Zone and industrial park. In Latin America, SEZs started in the 1960s and shortly, there was the development of zones in Asia (CIIP, 2017). "By 1978, zones of various stripes had sprouted across 22 economies, including Malaysia, the Philippines, Singapore, and the Republic of Korea" (ADB 2015, p.66). Foreign Investment Advisory Services (FIAS) states that from the mid-1960s, many developing countries and Sub-Saharan Africa started to develop Export Processing Zones (FIAS 2008). From an anticipated 500 zones in 1995, there are now around 4,300 zones in more than 130 economies (Moberg 2015 and ADB 2015). Then from the 1980s witnessed private sectors involved in SEZ establishments and from the 1990s, partnerships between government and private sectors began to emerge for SEZ development (Baissac 2011). The involvement of the private sector and partnership with the government lead to the increase in SEZ developments.

Special Economic Zones are governed by land-use policies and has defined land use plans. Farole (2010) expressed that industrial development is a significant objective for economies that compete in global markets. Therefore, SEZ development becomes a prerequisite to growing a country's economy through domestic and foreign investments. With this idea, South Africa towed the idea of industrial zones to promote economic growth and export-oriented goods and services (DTIC 2008). Hence, one of the critical successes and development of SEZs are government policies and proper planning. The reason why Sosnovskikh (2017) says that industrial cluster policies are crucial and extensively used tools for economic development in local and regional economic development planning. Institutions like ADB (2015) explain the role of SEZ in the integration of the regional bloc. SEZ policies add to the liberalisation of the economy that also changes how investors evaluate SEZs. The liberalisation of the economy is targeted through policy development. It resulted in policies that, in many cases, give primacy to cross-border trade and integration with global value chains (GVCs), for example, SEZs in Cambodia, Kazakhstan, Myanmar, Thailand and the PRC (ADB 2015). Also, "in more advanced stages, economies use successful SEZ policies and institutions to pursue economic openness and integration into vertical specialisation" (ADB 2015, p75). SEZs provide an exciting prospect for job creation and growth of GDP (Nel and Rogerson, 2013). Nel and Rogerson (2013) emphasize that since the first four Chinese SEZs were initiated in 1980, China has led the way in export-oriented growth and growing far faster than competing economies. The paper uses SEZ experiences as pivotal ideas that could be leveraged for regional integration in SADC. To reveal this idea, the research method, data collection and results explained through the experiences are described below.

3. Methods and tools

Research methods are strategies for carrying out research (Gumbo, 2013). The paper developed research designs that support the collection of qualitative data. The data collected were interpreted, validated, and predicted by the SEZ experiences. Therefore, the paper developed a well methodological method to arrive at the new idea and objectives. Qualitative approach evokes problem-solving through organisational or institutional document analysis, articles reviews, book reviews and internet information, which was used in data collection. Berg and Howard (2012) support this principle by saying that the qualitative research concept deals with signs and a narrative of effects. The importance of the qualitative research approach provides much data about real-life people and situations (De Vaus 2014, and Johnson and Christensen 2012). The paper administered this method to construct and reconstruct literatures and information where necessary. It also permits generated data instead of trying data produced somewhere else. It also covers a wide range of phenomena.

4. Data Collection

This paper processed secondary sources of data collection. Secondary data is from a source that has already been published. The secondary data was collected through archival analysis, including books, policies, legislative frameworks, research articles, and internet sources. Information and data are collected by reviewing existing literature, reports, and relevant documents obtained during data collection. The archival analysis looks at the SEZ experiences through the qualitative information. Researchers in various disciplines practically implement secondary analysis of existing data in their studies and research (Cherlin, 1991). The study can only use existing

data by analysing the archival information available. Therefore, collecting the existing data provided a supplement to collecting new data and assisted in identifying new ideas.

5. Results and Discussion

The results are discussed based on the objectives of the study, which explore the SEZs international experiences and how to tap into the experiences for sustainable development of SEZs in South Africa for regional integration.

5.1 Special Economic Zone Experience

The selection of SEZ experiences is based on the United Nations (2014) classifications of countries on developed, developing and transitional countries. However, the paper added local experience (South Africa), even though it falls within the developing countries. The classification is shown in table 1 below.

Table 1. SEZs Case Studies

| Classification | SEZ | Country |
|-------------------------|--|---------------------|
| Developed | Pomeranian SEZ, | Poland |
| Transitional | Iskandar Development Region (IDR) SEZ, | Malaysia |
| Developing | Panama-Pacific (PP) SEZ, | Panama |
| South Africa | Analysis of South Africa SEZ | South Africa |
| SEZ Foreign Partnership | Suzhou Industrial Park | China and Singapore |

Source: Author 2021

5.2. Developed economies

The noticeable dynamic of developed countries' SEZs is that there are many customs-free zones. UNCTAD (2019, p.152) states that SEZs are found in 70 percent of developed countries. Almost all the zones are customs-free zones. Their economic significance of the overall economy where they are located is relatively limited, except possibly in the United States. In Developed Countries, enterprise zones are also standard. Enterprise zones are planned to revitalise disadvantaged urban and rural areas through tax incentives and financial grants (FIAS 2008). Enterprise zones are known as Free trade zones to encourage development in less developed regions of countries such as the US, France, Japan, Italy, Poland, and the United Kingdom (UNCTAD, 2019 and Dialti 2018). In the European Union, there are up to 91 Free Zones, and the most important SEZs are in Shannon (Ireland), Madeira (Portugal), Katowice (Poland) and Latvia (EFTA, 2015). The European Economic Area Agreement provides free movement of goods, services, capital and persons (EFTA, 2015). The purpose of the agreement is to integrate Europe through the free movement of goods and services and reduce the cost of production through transportation services. In the US, Custom free zones, also known as foreign-trade zones, are established to encourage distribution or manufacturing operations at the US facilities rather than elsewhere (UNCTAD, 2019). Finco (2019) highlights that the treaty establishing the EU states customs union extends to all trade in goods. The treaty encourages leverage for the free flow of goods among member states. It allows the adoption of a single tariff for goods coming in or going out of the union. It encourages integration and the building of infrastructure to smoothen the integration among its members. Developed countries' SEZ policies are developed to create equal opportunities for industrialists and economic generators rather than creating specific zones to have privileged areas. UNCTAD (2019, p. 152) argues that the "general thrust of economic policy in developed countries is to create a level playing field across the economy, rather than setting up privileged areas". Finco (2019) supports the argument that the harmonisation of customs regulations without doubt also includes the legislation of free zones in order to create uniform rules necessary to entice foreign investment, produce jobs and boost trade flows with other countries. Therefore, SEZs are also developed to moderate the distortionary effects of tariffs on imported goods and services. SEZs in the EU that are privately or publicly managed. In Switzerland and Luxemburg, the free ports are privately managed and owned with government shares (UNCTAD, 2019). A case studies of developed countries are summarised below.

5.2.1. Poland

Poland SEZs were designed to develop new technologies, create jobs, develop exports, and improve infrastructure in the disadvantaged regions (Ambroziak and Hartwell 2018). Poland SEZs are focusing on traditional Export Processing Zone (EPZ) and Free Trade Zone (FTZ) activities (World Bank, 2008). The Poland SEZ act of 1994 is acquiescent with EU rules for state aid permissibility in cases of "market imperfection" (European Commission, 2005). The establishment of an SEZ in Poland is what led to the arrival of new investors with interest in new technologies and new production processes. The new technology led to the creation of inter-business linkages between local and new companies and, consequently, the reduction of unemployment by creating new and better

jobs (Ambroziak and Hartwell 2018). However, in 2018, Poland reviewed its Special Economic Zone law and aligned it with empowering local businesses and small enterprises. According to the Polish Investment Trade Agency (PAIH) report, the new law qualitative criteria motivate investors to go for projects that provide well-paid jobs, perform export sales, and collaborate with Research and Development institutions (PAIH 2018). For the paper, the Pomeranian Special Economic Zone is summarised below.

5.2.1.1 Pomeranian Special Economic Zone, Poland

The Pomeranian Special Economic Zone was established in 1995 and designed as a regional development tool. Pomeranian SEZ is located in the Pomorskie Province, and it is an approach to re-use existing infrastructure (World Bank, 2008). The primary tasks of the zone managers are to help entrepreneurs carry out their projects, advise them in choosing a site, a labour market, and find a convenient source of financing (PAIH 2018). However, it depends on the development level of the targeted point and how committed the local authorities were to investing in the SEZ (Ambroziak and Hartwell 2018). PAIH (2018) states that an investment project must score enough points to generate the investor's extra commitments to local economic development and to improving the skills of the hired workers.

5.3. Transition economies

Transitional zones pay more attention to regional integration and infrastructural development as critical factors in Special economic Zones. Zones are provided with a physical infrastructure supporting SEZs' firms and economic agents (ADB 2015). The transitional countries strategy for infrastructure development is through Public-Private Partnerships (PPP). In Asia, "PPP-based Special Economic Zones have mushroomed, motivated by potential synergies between government provision of public infrastructure, land and financing and the private sector's strength in the less politicised management structure and superior business models" (ADB, 2015, p.72). The aim is to create successful SEZs that consider integration a sustainable factor, not an isolated programme within a local or country sphere. Transitional economies, SEZs aim at infrastructural hubs that are often integral parts of regional infrastructure hubs and typically close to transportation corridors in transitional countries (UNCTAD 2019). SEZs in transition countries also focus on general manufacturing and export-oriented. However, in Russian, technology-oriented zones also play a vital role. There are public, private and foreign partnership SEZs developments in transitional countries. A case study of SEZs in transitional countries is reviewed below.

5.3.1. Malaysia

The development region covers an area of 2,217 square kilometres and is among the four economic corridors that form the Ninth Malaysia Plan (Khoo 2020). The region is highly integrated into Singapore. The SEZ was developed bearing the concept of the "National Physical Plan 2005–20" and the "National Spatial Planning" to promote regional development for national unity" (Nasional 2006). Iskandar Malaysia was designed to capture the spill-over from Singapore (Khoo, 2020) and surrounding areas. The development is based on Comprehensive Development Plans (CDPs) (Khoo, 2020 and Ohueri et al., 2016). The CDPs are strategic plans for projects environment and sustainability and focus on five flagship zones critical focal points for development in Iskandar Malaysia (Ohueri et al., 2016). The aim is to fast-track their sub-regions' economic growth and the industrial revolution (Farole and Akinici 2011). Iskandar Development Region SEZ forms part of the development partnership of the transnational export processing zone. A case study of Iskandar Development Region (IDR) SEZ, Malaysia is summarised below.

5.3.1.1. Iskandar Development Region (IDR) SEZ, Malaysia

IDR SEZ CDP focuses on five flagship zones inside the Southern Johor Economic Region. These flagship zones are considered vital for development in IDR; (Siong et al., 2009). The flagship zones are;

1. Johor Bahru City Centre: The zone is a financial district, central business district, Danga Bay integrated waterfront city and Tebrau Plentong mixed development
2. Nusajaya: It includes, Johor state administrative centre, medical hub, educity, international destination resort and southern industrial logistic cluster
3. Western Gate Development: The zone is a Port of Tanjung Pelepas, Free Trade Zone, RAMSAR World Heritage Park and Tanjung Piai)
4. Eastern Gate Development: The zone includes Pasir Gudang Port and industrial zone, Tan- Jung Langsat Port and Technology Park and Kim-Kim regional distribution centre and
5. Senai-Skudai: The zone includes Senai International Airport and Senai cargo hub.

The SEZ is strategically located at the route to Malaysia that is a crucial southern international trade gateway serving the growing needs of international trade in the region, and it has easy access to Senia International Airport, Singapore's Changi International Airport, Kaula Lumpur road, railways and it is supported by two major seaports, the Johor Port and Tanjung Pelepas (IRDA, 2011). IDR SEZ has developed its logistic infrastructure hub to the

extent that its economy has integrated into the Asian and international economic supply chain. IDR is a success story based on using SEZ for regional integration for economic development and growth. The SEZ harnessed complex infrastructure and soft services to integrate the region into the broader Asian economy and global value chain.

5.4. Developing Countries

Possibly, the first SEZ was developed in Latin America before Africa. SEZs in Latin America were established as early as 1942 in Puerto Rico, even though it is generally agreed that the concept of a modern SEZ was not established yet (Reyes 2011). South America and Caribbean Countries have almost 500 SEZs, employing about 1 million people (UNCTAD 2019). One unique factor in SEZ in Central America is the City of Knowledge SEZ. This SEZ is based on research, education and training. According to Etzkowitz and Leydesdorff (2010), the City of Knowledge contains government, private sector, universities, and research centres. In recent times, many Southern American countries have increased SEZs development in the region. According to Reyes (2011), Southern America is now the region with the third most SEZs globally, employing over 5.8 million people. Like many other regions globally, South America uses Special Economic Zones and Export Processing Zones (EPZs) as a catalyst for developing regions within a country or economically disadvantaged regions. For example, Costa Rican experience shows that EPZs can play as a policy instrument to assist in developing backward regions (ILO 2008). Also, single enterprise free zones are popular in South America. The zones are developed to attract benefits from free zones located along the US border (UNCTAD 2019). Colombia uses SEZs and single enterprise free points as public-private partnership ventures to innovate, knowledge gaps, and develop selected industries (UNCTAD 2019). In Panama, Special Economic Zones benefit from agglomeration forces such as transport cost savings, a shared pool of high-skill workers, and shared infrastructure (Glaeser, 2010). One of the similarities among Africa, Central America and South America is labour intensive SEZs. However, in South America, most labour-intensive SEZs are found in lower-income countries in the region (UNCTAD 2019). A case study of Developing Countries SEZ is examined below;

5.4.1. Panama

There are three SEZs in Panama, which are; Colon Free Zone (CFZ), the City of Knowledge (CK) and Panama-Pacific (PP). These three zone tenants are mainly technology firms, international organisations, academic and research institutions and export of goods. PP SEZ has developed into a bigger city that developed into a large-scale SEZ that combines residential, commercial and industrial activities, while CK aims to build an international platform of knowledge creation and diffusion (Hausmann et al. 2016). The Panama government signed many trade agreements with its neighbours to ensure the success of their zones. These agreements are to encourage a free flow of goods and services with little or no tariffs. UNCTAD (2016) highlights the Free Trade Agreement (FTA) with Mexico that will eliminate all tariffs on goods within five years from the date of the signing. Hausmann et al. (2016) expressed that the Panama government supports SEZ that encourages national productivity, industrialisation, and export diversification. The Panama government is to integrate to the broader areas of the neighbouring countries economy through transport infrastructure encouraged by policy developments. PP SEZ is summarised below as a case study.

5.4.1.1 Panama-Pacific (PP) SEZ,

Panama-Pacific was established in 2007 in the former US military areas of Howard Air Force Base and Fort Kobbe in the District of Arraijan (Hausmann et al., 2016). The SEZ is an industrial park, housing projects, shopping malls, a unique custom regime, four schools, two training centres, an international airport, and a one-stop-shop (Hausmann et al., 2016). UNCTAD (2016, p. 56) highlights that PP SEZ "has already attracted around 140 companies, contributing to investment inflows and to the availability of inputs relevant to generate supply capacity. It has direct access to the Panamerican Highway, connecting Panama with Central and North America. It is adjacent to the port of Balboa in the Pacific Ocean, and only 15 minutes from downtown Panama City, 45 minutes from Tocumen International Airport and one hour away from the largest port complex in containers located in the Caribbean Sea".

5.5. Special Economic Zone in South Africa

The first attempt by the South Africa government to establish SEZ was in early 2000, known as IDZ. IDZ was defined as a built industrial area linked to an international air or seaport that contains one or multiple Customs Controlled Areas to boost investment, economic growth, skills and employment in the regions they are located (SARS, 2014). IDZs were developed to grow local economies and provide decent jobs for communities that had been disadvantaged (Chinguno, 2009). Mouchilli (2014) highlights that development of IDZs away from the significant cities predestined that infrastructure and service provision in IDZ areas was not always accessible, let alone efficient. Because of the location, large amounts of funding were needed to develop infrastructure in these regions, resulting in high initial costs for establishment (Mouchilli 2014). The challenge led to review of IDZ

and it shows that 11 per cent of workers were skilled, 62 per cent semi-skilled, and 27 per cent unskilled (Burger and Woolard, 2005). The finding indicates "a weak policy and legislative framework; poor institutional and governance arrangements" (DTIC, 2013 p. 4). The assessment of IDZs and their weaknesses led to development of SEZ policy (Karambakuwa et al., 2020).

South Africa Government vision is to take advantage of SEZs as an essential strategic plan to prioritise industrialisation and develop the economy. SEZ policy was designed to enable FDI, improve infrastructure, develop new industrial hubs and create significant new decent jobs (DTIC 2018). The number of designated SEZs in South Africa is eight. These are Saldanha Bay (WC), Dube Trade Port (KZN), OR Tambo (GP), Coega (EC), East London (EC), Richards Bay (KZN), Musina (Limpopo), and Maluti a Phofung (FS), (DTIC 2018). "The number of operational investors in designated SEZs has increased from 72 to 85, with a total investment value of over R9 billion. One thing that has featured prominently in SEZs' policy development and plans in South Africa is the need to improve infrastructure (Farole and Sharp 2017, Nel and Rogerson 2014, and DTIC 2013).

5.6. Foreign Partnership Zones

Foreign partnership zones started with Chinese interests outside its borders with the establishment of an industrial zone in Camden, South Carolina, USA, in 1999. Since then, foreign partnerships in zone establishments have increased. The partnership has grown and benefits many countries through SEZs development. For example, Chinese, Japanese have participated in the establishments of SEZs in Asia and Africa through Public-Private Partnership (PPP) projects (UNCTAD 2019). There is also government to government partnership in embellishment and management of SEZs. These types of SEZs are developed through a bilateral agreement between two or more countries. Example of government to government SEZ is the Japanese townships in India, which is called OneHub Chennai (UNCTAD 2019). Singapore builds strategic zones in key markets as its regionalisation policy (Yeoh et al. 2004). The Lekki Zone is planned to connect the port and airport to form a coastal city and the logistics centre of West Africa (Xinhua 2011). The Chambishi Zone in Zambia is located in the country's industrial hub. It is planned to forge a value chain of copper/cobalt mining by creating a regional "strategic base" through Tanzam Railway that will extend to Central Africa (Brautigam and Tang 2013). Table 2 below shows some of the SEZs developed through foreign and local partnerships.

Table 2: Types of SEZs developed with foreign partners

| Types of SEZs | Examples |
|---|---|
| Zones developed by foreign developers or through joint ventures | <ul style="list-style-type: none"> • Techno Park Poipet, developed by Toyota Tsusho (Japan) in Cambodia (2015) • Cali Tech Park, developed by Zonamerica (Uruguay) in Colombia (2016) • Pearl River SEZ, developed by New South (China) in Kenya (2017) through a joint venture with African Economic Zones Ltd |
| Zones developed through public-private partnerships with foreign developers | <ul style="list-style-type: none"> • Free Industrial Zone Hualing Kutaisi 2, developed by Hualing Group (China) in Georgia (2015), on the basis of a memorandum of understanding with the Ministry of Economy and Sustainable Development of Georgia • Lekki FTZ, developed by Chinese consortiums in Nigeria (2006) through a joint venture with the Lagos State Government |
| Zones developed as government-government partnership projects | <ul style="list-style-type: none"> • Suzhou Industrial Park, developed in China (1994) through a joint venture between Singaporean and Chinese consortiums • Thilawa SEZ, developed in Myanmar (2011) through a joint venture between the Myanmar and Japanese governments, and private consortiums from Myanmar and Japan • Russia Industrial Zone, developed in Egypt (2018) by a Russian Federation developer |

Source: UNCTAD 2019

Table 2 above highlighted only three African countries that are involved in SEZs development with foreign partners. These countries are Nigeria, Kenya and Egypt, with none in Southern Africa. In Nigeria, Lekki Free Trade Zone (LFTZ) was developed with Chinese Consortiums in 2006. Pearl River SEZ was developed in 2017 in Kenya by China through a joint venture with African Economic Zones (UNCTAD 2019). Table 3 below shows government SEZs' partnership developments.

Table 3: Selected Government Partnership Zones

| Zone | Home Economy | Host Economy | Bilateral Agreement | Development Model |
|---|---------------|--------------------|---------------------|--|
| Batamindo Industrial Park | Singapore | Indonesia | 1989 | Joint venture between Singapore Government-linked companies and Salim Group, Indonesia |
| Suzhou Industrial Park | Singapore | China | 1994 | Joint venture between Singaporean and Chinese consortiums |
| Lekki Free Trade Zone | China | Nigeria | 2006 | Joint venture between Chinese consortiums and the Lagos State Government |
| Bethlehem Multidisciplinary Industrial Park | France | State of Palestine | 2008 | Joint venture between the Agency Française de Développement, French, Palestinian and other private investors |
| Caracol IP | United States | Haiti | 2012 | Developed by the Government of Haiti, the Inter-American Development Bank, the United States Government and Sae-A Trading (Republic of Korea). |
| OneHub | Japan | India | 2013 | Joint venture between an Indian public administrator, a Singaporean private developer and a Japanese consortium |
| Russia Industrial Zone | Russia | Egypt | 2018 | To be developed by a Russia Industrial Developer |

Source: UNCTAD 2019

The principal objective of government partnership SEZs is to encourage a bilateral relationship between countries and integration that reduces the cost for transportation of goods and services. Tables 2 and 3 above show that Southern Africa countries do not benefit from partnerships from foreign countries in developing SEZs in the region; however, there is a presence of China and Japan in Zambia, according to (Phiri and Manchishi 2020). Also, Africa is not left out in the country to country involvement in SEZs. For example, UNCTAD (2019, p.157) indicates that "in Africa, Mauritius has been actively participating in the development of SEZs in Côte d'Ivoire, Ghana, Madagascar and Senegal to create a conducive environment for local operators to tap into business opportunities in these countries and develop business corridors, as well as to enhance the demand for Mauritian products and share Mauritius' experience in zone development".

5.7. Current Trends in SEZs and Integration

Innovation and transformation are the current trends in Special Economic Zone establishment. The innovation is about how industries and services companies in SEZs carry out their businesses or manufacture products. Karambakuwa et al. (2020) argue that SEZs must promote diversification and further develop new technological innovation. UNCTAD (2019) made a case by stating that SEZ policy and strategy have shifted internationally to creating knowledge-intensive clusters through innovation-driven SEZs that focus on research and development (R&D) and other high value-added activities. Zeng (2021) supported the argument by indicating that SEZs are transforming towards higher value-added service sectors and more business-friendly standings. The trend is a gradual shift from the norm to new ideas and innovations. To create a sustainable SEZ innovation in the future, it should be backed by policies to improve production, transportation of goods and make services easier and accessible through high-tech implementation of services and infrastructure. For example, China intends to use FTZs as a platform for testing new policies to enable more open trade and further open up its service sectors, such as finance, through easing constraints on foreign and domestic companies (Zeng 2021).

With the Fourth Industrial Revolution (4IR) advancing, many countries plan to build more innovative SEZs. One significant change is the increased use of digitised zone services that allows parties involved in trade and transport to lodge standardised information and make customs clearance much faster and more accurate (Zeng 2021). UNCTAD (2019) states that government authorities have carried innovations to the concept of zones by building specialised zones for science, start-up incubation, R&D, biotech, green tech and many other purposes. For example, South Korea's Ministry of Trade, Industry, and Energy announced its first batch of locations to establish intelligent industrial zones, exploiting high-end information and communication technologies to improve companies' productivity (Zeng 2021). Table 4 highlights the evolution of SEZs. The table helps the paper to understand the next generation of SEZs and how SEZs have evolved.

Table 4. The evolution of economic zones and their key characteristics

| Zone name | Generation | Key characteristics |
|-------------------------------|-------------------|---|
| EP | First-generation | Focusing on FDI and exports, with little linkage with the local economy |
| Multi-functional SEZ | Second generation | Broader size, multi-sectoral, multi-functional, with better linkage with the local economy |
| EIP | Third generation | Emphasising both economic competitiveness and environmental sustainability, with a more integrated approach |
| Modern FTZ | Fourth generation | Focusing on high value-added modern service sectors and more business-friendly reforms |
| Intelligent city (Smart City) | Fifth-generation | Also called 'digital zone' or 'smart city, where digital technologies are embedded in products and services and fully integrated with urban and eco-development concepts. |

Source: Zeng (2021)

Table 4 shows how the evolution of SEZ is quite interesting in understanding the historical progression. The first set of SEZs was established for FDI with little consideration for domestic involvement. Then the second phase begins to realign towards FDI and domestic investments. The third generation was concerned with sustainability, which is the anchor of long term investment. In the fourth generation, more reforms were engaged to attract investment through governance and administration. Presently, in the fifth phase, SEZ is looking forward to intelligent cities (Smart City). Digital SEZ, greener transport systems. A better technological SEZ linked to logistics and one-stop-shop for easy flow of goods and services for regional bloc integrations.

5.9. Gaps and Summary of the Literature Review

The gaps and the summary will be analysed based on the different types/case studies of SEZs found in Developed, Transitional, Developing, Africa, Southern Africa, and South Africa. The gap and summary are indicated in the table below.

Table 5: Gap and Summary of Literature review

| Items | Developed | Transitional and Asia | Developing | South Africa |
|---|---|--|--|---|
| Administration, policy, governance, and background. | Mostly custom free zone. The policies are directed to a level playing ground for investors, to science, technology, to improve underdeveloped regions and integrations. Managed by the private sector, and few are managed by the public sector or through private and public partnerships. | Improve Infrastructure development attract high-tech. SEZs are intended for regional integration and tourism. Also to promote an economic link between rural areas and urban areas. Most of the SEZs are managed by government and private partnerships. | Mostly managed through private and public sectors, particularly in South America. The primary aim is to attract FDI and to create jobs. Some SEZ in South America are service oriented SEZ, while in Africa, they are more industrial development. The SEZs are labour intensives. | Government institutions manage most SEZs in South Africa. The idea of SEZ was to attract FDI and domestic investments, create jobs and encourage LED. The challenges are the funding of infrastructure. |
| Infrastructure and Integration | Placed enormous importance on infrastructure investment to ensure integration. | SEZs in transitional countries consider infrastructure development a priority, a way to reduce cost and regional integration. Infrastructures are provided through | Infrastructure is a challenge in developing countries. It impacts SEZ potentials for growth. It Limits integration and potentials of SEZ success | South African SEZs have challenges with infrastructural development and limits intra-regional trade and regional integration. |

| Items | Developed | Transitional and Asia | Developing | South Africa |
|------------------------------|---|---|--|---|
| | | Public-private partnership (PPP) | | |
| Regionalisation | Regional development and integration are considered in SEZs' Policies, planning and implementation. | Regional development and integration are considered in SEZs' policies, planning and implementation. | There are policies and strategic frameworks for regional planning. However, there is a weak implementation plan | There are policies and strategic frameworks for regional planning but does not support regional integration. |
| Customs offices, procedures. | SEZs operate as customs-free zones. These customs-free zones provide relief from tariffs and the administrative burden of customs procedures. | Custom zones are part of SEZs development and plans. In China, the SEZ authorities have established a one-stop-shop for each SEZ. | Custom duties are paid in most developing countries with reduced tariffs. In some countries, there is an exemption from customs duties on all goods imported into the free port zones. | There is no Custom Union among Southern African Development Community. Thereby limits free flow of goods within the region. |
| Types Of Services | Industries, technology/High-Tech, Free trade Zones, Free Custom duty and one-stop shops. | Training, Research, High-Tech, Education, Free Trade ones, Custom Areas, Tourism, Industries, Business Services, Education, Offices, Transport hubs, IT Services, Internet Service Providers, R&D, residential. | Industries, Export Processing, Free trade Zones, Business Services in South America, R&D. Free points in Southern American countries. | Industries, agro-processing, Services, ICT, technology park, training, transport services, logistics. |

Source: Author 2022

Table 5 summarized the gap between SEZ in South Africa and other SEZs in the world. It highlights the differences in the services, whether the SEZs have custom areas and one-stop-shop, whether the SEZ transport infrastructure leads to integration, regionalization through SEZ, number of SEZ, governance, and administration style SEZ. The idea is to comprehend the challenges facing SEZ in South Africa. Table 5 highlights the grey areas in South Africa SEZ and the new ideas from international experience.

6. Lessons Learnt and Implications

The success of special economic zones in transitional countries that are similar to South Africa SEZ is the ability to align SEZ plans and development to a broader regional perspective and infrastructure developments. Take for instance, Iskandar Development Regional SEZ is aligned with the Indonesia and Thailand partners in the sub-regional growth triangle. It is also a gate way to Singapore through transportation networks such as railways, roads and air transportations. The developed countries establish SEZ policies by giving equal playing country for manufactures. One of the most important lessons is the Panama-Pacific SEZ that has grown into a big city housing different types of land uses that include industrial, commercial, residential, educational and social facilities. There is also attraction of investments through joint venture SEZs such as private public partnership or public to public partnership. These are area lacking in the implementation of SEZs in South Africa and could be major challenges in the success of special economic zones in South Africa. Therefore, they highlight the need for broader SEZ development plans.

7. Conclusions and Recommendations

SEZs' significant challenges in Africa, including South Africa, have infrastructural challenges, particularly in transport infrastructures such as roads, railways, and cargo airports. The inter-trade within Africa is poor. It limits the engagement or exportation and importation of goods within Africa countries. The limited inter-Africa trade could be linked to limited industrialisation in Africa when compared to other regions. While other regions are anchored their SEZ towards integration within South East Asia and South America, Africa SEZ are mainly focused on the local economy and regional integration within the same country. Many SEZs in Asia and North America are aligned with institutions, services providers and research institutes. It gives SEZs in Asia and other areas privilege for skill development which is limited in Africa. It also contributes to the lack of integration promoting Africa agenda 63. SEZ is leveraged to encourage the development of a disadvantaged region in Europe and South America. The free flow of goods and services in the EU has the backing of policies through removing restrictions, and most EU SEZs are developed with EU policies in mind. Another engaging learning from SEZ in South America is the City of Knowledge SEZ that thrives on education, training, research and development (R&D) and innovation services. The zone provides business services, commercial services, shopping malls and residential developments. Interestingly, some SEZs have developed into smart cities or big towns rather than isolated areas of concentration of industries. Therefore, strategically special economic zones should be planned towards a smart city not as an isolated industrial park or economic zone.

SEZs can become a strategic development plan for regional integration through proper planning that include policy development, strategies and land use developments. The integration could be achieved by enhancing backwards and forward linkages which fast-track transport infrastructure transformation regionally. It is crucial to integrate SEZ into the regional blocs and national economy rather than an isolated national development. It provides significant opportunities for regional bloc integration through knowledge sharing, innovation, skills development and free movement of goods and services. The regional integration of countries' economies, inclusive trade and investment policy depends on maximising export processing zones (FIAS 2008). The study by Leong (2013) shows the role of SEZs in liberalising China and India economies that lead to a rise in economic growth and regional integration. The review of the special economic zones experiences indicate the importance of multi-model logistic hubs, where all transport models are synergised, and tenants could consider the best for their goods and services. Moreover, a model where each mode of transport plays an important role.

References

- ADB. *Asian Economic Integration Report 2015: How Can Special Economic Zones Catalyse Economic Development?* 6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines. (adb.org), 2015.
- Ambroziak, A.A. and Hartwell, C.A., *Impact of Investments in Special Economic Zones on Regional Development: The Case of Poland*. [SEZs Poviats development blinded resubmission final.pdf \(bournemouth.ac.uk\)](#). Accessed 13 August 2021, 2018.
- AU. *African Trade Statistics*. Roosevelt Street (Old Airport Area), W21K19, Addis Ababa, Ethiopia, 2020.
- Baissac C., *Breif history of SEZ and overview of policy debates*. In Farole Special Economic Zones in Africa: Comparing Performance and Learning from Global Experience. World Bank, Washington, DC, 2011.
- Berg, B. L. & Howard, L., *Qualitative Research Methods for the Social Sciences*. (8th ed). USA: Pearson Educational Inc, 2012.
- Cherlin, A., *On analyzing other people's data*. *Developmental Psychology*, 27(6), 946–948. <https://doi.org/10.1037/0012-1649.27.6.946>, 1991
- CIIP., *Special Economic Zones: an Operational Review of Their Impacts*. The World Bank Group 1818 H Street NW Washington, DC 20433, 2017.
- De Vaus, D. A., *Surveys in Social Research*. (6th ed). Australia: UCL Press, 2014.
- Dialti F., *Special Economic Zones finally established by Italy*. IBA Digital Content. https://www.cbalex.com/sites/cbalex/files/articles/files/newsletter_iba_28.09.2018.pdf. Accessed 15 September 2021, 2018.
- DTIC, *Industrial Development Zone Programme: Guidelines*. 77 Meintjies Street, Block a, 3rd Floor, Sunnyside, Pretoria, 2008.
- DTIC., *Special Economic Zones Bill*. Government Gazette No. 36203 of 1 March 2013. South Africa: National Assembly, 2013.
- DTIC., *Special Economic Zones Bill*. Government Gazette No. 36203 of 19 May 2014. South Africa: National Assembly. 77 Meintjies Street, Block a, 3rd Floor, Sunnyside, Pretoria, 2014.
- EFTA, *This is EFTA – European Free Trade Association 2015*. Gramme SA, Belgium, 2015.
- Etzkowitz, H. and Leydesdorff, L., *The dynamics of innovation: from National Systems and “Mode 2” to*

- a Triple Helix of university–industry–government relations*. Research Policy 29 (2), pp. 109 – 123, 2000.
- European Commission. *State Aid Action Plan. Less and better targeted state aid: a roadmap for state aid reform 2005–2009*, COM (2005) 107 final, Brussels, 2005.
- FIAS., *Special Economic Zones: Performance, Lessons Learned, and Implications for Zone Development*. World Bank. Washington DC, 2008.
- Farole, T., *Special Economic Zones. Performance, policy and practice with a focus on sub-Saharan Africa*. Report for the International trade department. Washington, DC: The World Bank, 2010.
- Farole T. and Akinci G., *Special Economic Zones, Progress, Emerging Challenges, and Future Directions*. The International Bank for Reconstruction and Development / The World Bank 1818 H Street NW Washington DC 20433, 2011.
- Farole T and Sharp M., *Spatial Industrial Policy, Special Economic Zones and Cities in South Africa*. National Treasury, 40 Church Square, Pretoria, 2017.
- Finco F., *Free Zones: the global experience through legislation. Master's Degree in Global Development and Entrepreneurship Final Thesis*. [Ca' Foscari University of Venice. Italy](#). 2019
- Glaeser, E. L. (Ed.), *Agglomeration economics*. University of Chicago Press, 2010.
- Gumbo, T., *On Ideology Change and Spatial and Structural Linkages between Formal and Informal Economic Sectors in Zimbabwean cities (1981-2010)*. Dissertation presented for the degree of Doctor of Philosophy in the Faculty of Science at Stellenbosch University, Western Cape, South Africa, 2013.
- Hausmann R, Obach J and Santos M.A., *Special Economic Zones in Panama: A Critical Assessment Faculty Research Working Paper Series*. Center for International Development, Harvard University, 2016.
- IRDA. *Invest Logistics Iskandar Malaysia; Asia Most Centre and Expandable Logistic Hub*. Iskandar Regional Development Authority; Block 8, Danga Bay, Jalan Skudai, 80200 Johor Bahru, Malaysia, 2011.
- Johnson, B. & Christensen, L., *Educational Research, Qualitative, Quantitative and Mixed Approach*. (4th ed). California: SAGE Publication, 2012.
- Karambakuwa R. T, Matekenya W, Mishi S, Jeke L, and Ncwadi R. M., *Special economic zones and transnational zones as tools for Southern Africa's growth*: WIDER Working Paper 2020/170. United Nations University, 2020.
- Khoon K. N., *Johor Bahru's Urban Transformation: Authority and Agency Revisited*. Johor: Abode of Development? Chapter: 15. Publisher: ISEAS – Yusof Ishak Institute. 30 Heng Mui Keng Terrace, Singapore, 2020.
- Moberg L., *The Political Economy of Special Economic Zones*. Journal of Institutional Economics. 11(1). pp. 167-190, 2015.
- Nels, E.L. and Rogerson, C.M., *Special Economic Zones in South Africa: Reflections from International Debates*. *Urban Forum* 24(1): 205-271, 2013.
- Nasional K., *Comprehensive Development Plan for South Johor Economic Region, 2006–2025*. Khazanah Nasional Berhad. Kuala Lumpur, 2006.
- Ohueri CC, Zakaria Bin Mohd Yusof, Hadina H., *The Need for Strategic Training and Development of Iskandar Malaysia Workforce*. International Journal of Humanities and Social Science Invention ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714 www.ijhssi.org ||Volume 5 Issue 5 ||May. 2016 || PP.41-44, 2016.
- PAIH, *Polish Investment Zone: Legal and Organizational Changes*. Krucza St. 5000-025 Warsaw, 2018.
- Phiri M and Manchishi S., *Special economic zones in Southern Africa: white elephants or latent drivers of growth and employment?; The case of Zambia and South Africa*. South Africa towards Inclusive Economic Development (SA-TIED) Working Paper #148 | December 2020, 2020.
- Reyes R. R., *Latin American Special Economic Zones and their Impacts on Regional Security*. Thesis, Naval Postgraduate School Monterey, California, 2011.
- Siong et al., *Low-Carbon City 2025; Sustainable Iskandar Malaysia*. Vice Chancellor Council and Japan Society for the Promotion of Science Group Vii: The Planning of Urban Energy and Environmental Systems. Source: [JBbooklet_finalDraft_20090127 \(nies.go.jp\)](#), Date: 27 June 2021, 2009.
- Sosnovskikh, S., *Peculiarities in the Development of Special Economic Zones and Industrial Parks in Russia*. European Journal of Geography Volume 8, Number 4:82 - 102, October 2017, 2017.
- UNCTAD. *Panama trade Policy Framework*. United Nations Publications, 300 East 42nd Street, New York, New York 10017, 2016.
- UNCTAD, *World Investment Report: Special Economic Zone*; United Nations Conference on Trade and Development (UNCTAD). United Nations Publications, 300 East 42nd Street, New York, New York 10017, 2019.
- United Nations, *The Physical Planning of Industrial Estates*. Department of Economics and Social Affairs, New York, 1962

World Bank, *Special economic zones: Performance, implications and lessons learned for zone development*. The World Bank Group 1818 H Street, NW Washington, DC 20433, 2008.

Woolfrey, S., '*Special Economic Zones and Regional Integration in Africa*'. Stellenbosch Tralac Working Paper S13WP10. Stellenbosch: Trade and Law Centre, 2013.

Zeng D Z., *the Past, Present, and Future of Special Economic Zones and Their Impact*. *Journal of International Economic Law*. Published online 2021 Apr 8. Source <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8083530/> access 30th June 2021, 2021.

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