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The Dynamics of Special Economic Zones in Manufacturing Industry to Economic Transformation: the Case of Dire Dawa City

Mahder Berhanu[1]

Abstract

The significance of a country's special economic zones, especially manufacturing industries received great attention for economic transformation. The aim of the study is to deal with the dynamics of special economic zones in manufacturing industry to economic transformation in Dire Dawa City. No study conducted in the area of special economic zones in manufacturing industry at national as well as regional level. In this study, we used 57 operational manufacturing firms in 11 sub-sectors to examine the more dynamics of special economic zones for economic transformation. The concurrent mixed research design was employed. Both primary and secondary data were collected. The study found that it has a significant effect on economic transformation in terms of employment, export product diversification, industrialization, urbanization, and regional economic growth. However, it requires placing special measurement to tackle, manage and implement properly through reducing negative consequences. The study, therefore, recommended that the city and the federal government should develop, design and implement successful special economic zones strategies to attract and sustain investment.

Keywords: dynamics; special economic zones; manufacturing industry; economic transformation

1. Introduction

Countries always need to develop rapidly. The regions are the most crucial elements for accelerating the development process. Therefore the government needs to follow new directions to achieve the desired development goals at the whole regional as well as national levels. The country's success depends on the creation of competitive and dynamic regions due to political, economic, social, technological and environmental. According to OECD (2010), regional and local development has great opportunities for knowledge and technology transfer, and market expansion. These need additional opportunities in improving the business environment, upgrading skills, and environment. Recently, special economic zones have become more popular in order to bring dynamism to the country's as well as the regional economy. Thus, SEZs very significant element for regional development through attracting new investments, providing adequate infrastructure, improving service delivering system. Besides it has a significant impact

[1]Consultant,UIIDP, Email: fantu.2000@yahoo.com

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for successful economic transformation. For that reason, the manufacturing industry plays the most significant role in the industrialization process, i.e., helps to achieve the goals of socioeconomic development to bring economic transformation. The manufacturing sector makes a dynamic element of the industrial sector. Stieglitz, J., et al. (2017) state that industrialization dynamics are therefore an unavoidable component of structural transformation through the main engines of sustained economic growth. The recent economic growth and transformation of newly industrialized countries have been led by the development of global competitiveness in manufacturing sectors.

Economic transformation is central to sustainable growth and development. Without industrialization and structural transformation, the journey towards the middle-income economy will not be feasible. The development of the manufacturing industry is essential to build national technological capacity, industrial capability, and create job opportunities and improve income. Experience from industrial countries indicated that the manufacturing industry is the basis for sustainable agriculture and service sectors growth. Thus the realization of the transformation agenda calls for concerted and coordinated efforts among key actors and long-term leadership commitment. The economic transformations viewed in industrialized countries due to the expansion of the manufacturing sector (Adugna, 2014). In the development process, the investment is a very important part that is available through various means of production, which will be optimized to produce the output, thereby increasing economic growth (Nainggolan et al., 2015). The knowledge about the special economic zones (SEZs) and their significance for regional economic transformation are unrecognized.

Several empirical studies have been carried out in the manufacturing sector at the national level and in developing countries, but no study conducted in the area of SEZ to economic transformation at national as well as regional level including the study area. From the reviewed literature, the researcher found that the overall assessment of special economic zones of manufacturing firms unobserved in the presented literature. However, this sector needs special attention now. These limitations in the existing literature motivated the researcher to examine the dynamics of special economic zones in the manufacturing industry to economic transformation comprehensively. Thus, no study has been conducted to study a comprehensive approach to address various issues related to economic transformation. Intending to conducting a comprehensive appraisal of manufacturing firms in different sub-fields of empirical literature, we use the methodology that covers six research questions. The practical situations have been addressed concerning manufacturing firms. The existing empirical literature regarding special economic zones in manufacturing firms economic growth alignment, which does not indicate the overall manufacturing firms'.

Hence, there is a lack of comprehensive evidence regarding special economic zones in view of evidence from Dire Dawa city in particular and Ethiopia in general. In fact, a few researchers examined to study special economic zones in developing countries like India,China,Russia, Poland, Uzbekistan and Zimbabwe. The researcher tried to link theories with respect to special economic zones. There is still a gap in comprehensively addressing the issue of manufacturing firms' from the side of economic transformation in Dire Dawa city. Thus, this research intends to fill the knowledge gaps by addressing the literature and providing reliable information. Special economic zones are a major economic powerhouse for developing countries to promote rapid

economic transformation through industrialization by using various types of incentives, and technology. In Ethiopia, the government has established a number of SEZs and industrial parks in several regions, particularly in Dire Dawa city. The largest value of production comes from food and beverage, followed by non-metallic mineral sector and metal and woodwork while the smallest contribution came from textile. But, still, now no one effort made to study from a research perspective examining the special economic zones to economic transformation particularly in the study area, so far. The main reason for this is that Dire Dawa has accounted for a long history establishment of manufacturing industries; its path is unsatisfactory and infant stages due to the unfavorable business environment. Different studies have been conducted in the manufacturing industry; this topic is far from being tried as research. This study significantly contributes to solving the existing problem. There is no empirical data for the well-functioning special economic zones in manufacturing sectors in the study area. Hence, this fact has initiated to deal with the manufacturing industry for national as well as the regional economy for accelerating industrialization, urbanization and economic transformation. Thus, this study seeks to examine the dynamics of special economic zones for economic transformation in order to create successful special economic zones in Dire Dawa city by raising the following research questions: a) What types of special economic zones exist in Dire Dawa City? b) What are the unique features of SEZs to accelerate economic transformation? C) To what extent SEZs significantly contribute to economic transformation? D) What is the positive effect of SEZs for economic transformation in the study area? E) How SEZs has a negative impact on Economic growth and transformation? And F) How to measure the suitable environment of SEZs in the study area?

2. Literature Review

2.1 Concepts

In recent years, there has been increasing interest among countries in issues related to improving the quality of growth through economic transformation (Worrall, et al., 2015). Although many developing countries have brought fast economic growth, the growth has been low in quality and attended by insignificant economic transformation. Economic transformation, therefore, has a significant effect on structural shifts in production, employment, gross domestic product, labor productivity, and export product diversification. It promotes socioeconomic development and inclusive growth by generating income and diversifying the available resources for future growth.

The concept of economic transformation indicates how the economies transform by creating a conducive environment, stabilizing the political environment, and also gives a great reflection in the development of policies and strategies. The major research done by international academic literature defines economic transformation as a process of moving labor and other resources from lower to higher productive activities (Ibid). Lin (2012) proposed that economic transformation can be accelerated by selecting industries, identifying constraints, upgrading the technology of domestic firms, attracting new firms, enhancing innovation, building special economic zones (SEZs) or industrial parks and compensating pioneering firms (cited in Worrall et al., 2015). The African Development Bank Group (2013) argues that the economic transformation in Africa still not smooth and imperfect (Cited in Worrall et al., 2015). The above suggestion connotes that

sound policies and strong institutions are required for economic transformation. For that reason, effective institutions are needed to formulate sound policies. Various literature broadly defines economic transformation as follows: Economic transformation is a fundamental change in the structure, systems, institutions, the pattern of ownership, management, and control of the economy (National Policy Conference, 2017). UNECA (2013) stated that, on the economic transformation for Africa development document internal factors include poor economic management capacities typified by macro-economic instability, poor plan design and implementation capacities, weak institutional and individual capacities, limited investments in social and economic infrastructure, limited investment in technology and research and development and political instability. The external factors include limited policy space, the barrier to trade that undermines export revenues, constrains on exports of manufactured goods and climate change. Therefore, economic transformation and human development are inextricably linked. A successful transformation agenda requires a productive, healthy and skilled labor force by diversifying the sources of growth and transformation that promotes inclusiveness, minimizes inequality and optimizes the use of natural resources.

2.2 Theoretical Perspectives

2.2.1 Growth Pole Theory

The concept of growth pole was first introduced by Francois Perruoux in 1950. The main idea of this theory is focused on economic development which has not uniform growth among overall the region of the nation rather need to take place a specific area of growth pole. The theory mainly characterizes the main industrial sector, which helps to link with the development sector. The theory focuses on the high concentration of advanced technology industries and innovation to stimulate local economic development related to industries and businesses. In modern practice, growth poles ideas are implemented in free economic zones, technological parks, industrial parks and consists of economic (budget policy, socioeconomic development of the region), organizational (available objects and subjects of public and social management, their goals, tasks, functions, methods of management and organizational structures as well as results that are expected as a result of the "growth pole" development), political (formation of mechanism of economic, social, financial, industrial policy on creation and development of the "growth pole" development)(Komarovskiy and Bondaruk, 2013).

Manyanhaire et al (2011) noted that most of the growth poles are unsuccessful as the complexity of socio-economic factors that have inadequately internalized by concerned governmental bodies.

2.2.2 Industrial District Theory

Alfred Marshall has discovered the existence of industrial districts in 1930. Belussi and Caldari (2008) stated that the industrial district an area where a concentration of firms has settled down. The main reasons for highly geographical concentration of firms are close to natural resources, physical situations (climate, soil, mines, quarries, access to land and water); and demands for goods. Most manufacturing firms need to concentrate in a particular area due to several advantages, i.e., industrial atmosphere and production process. The qualified skilled manpower,

transport, education, and finance dedicate the manufacturing firms to start their production process.

2.2.3 Regional Economic Growth Theories

Manufacturing industries are a driving force in regional economic growth and sustainable development. Wu et al. (2018) showed that regions with comparative advantage of high tech industries, high labour costs, strict environmental regulations, preferential policies, and urbanization economies are smart to manufacturing industries. Capello (2011) explains that regional growth theories seek to identify the main local development determinants, where development is intended as territorial competitiveness.

2.3 Empirical Literature

Various empirical studies addressed the dynamics of special economic zones to economic transformation as follows:

Akbari, et al. (2018) conducted a study on the performance of the firms in a free-trade zone in Iran. Common method variance, partial least square model and descriptive statistics were employed to analyze the data. The result showed that resources had a positive effect on the manufacturing firms' performance in the free trade and industrial zone.

Abdusharipovich (2018) analyzed the special economic zones as an engine of regional economic development in Uzbekistan. The paper reviewed the successful countries' experience of China, Korea, Singapore, and UAE to explain the contribution of regional development economies.

The study concluded and recommended that special economic zones were effective tools for economic development,thus the government should strongly support by providing quality infrastructure, ongoing training, technological upgrading, and promoting research and development activities to accelerate the regional economy.

Chakraborty et al. (2017) analyzed have the special economic zones succeeded in attracting FDI? In India. The time period covered from 2001-2014. The variable market size; labor, infrastructure (transportation, telephone, ports, airports, and highways) and government policy (special incentives) were tested using regression results. The findings showed that market size, infrastructure, location, and labor availability had a positive impact on foreign direct investment inflows in the special economic zones.

Babita (2017) studied the output and input efficiency of special economic zones in India and included 30 zones. The time period was from 2009-2015. The variables raw material, capital goods, labor (input variable) and exports (output variables) were selected for test using the Cobb-Douglas production function. The results showed that all input variables significantly affect the output variables (exports). The author concluded that public-private partnership should be implemented to reduce the risk of both parties.

Munyoro et al. (2017) conducted a study on the significance of special economic zones in the economic development of Zimbabwe. Phenomenology, philosophy, and case research design were used. The study concluded and recommended that special economic zones are significant to economic development, but policymakers should consistent policy assertion to implement successful economic policies.

Vaidya (2017) conducted a study of special economic zones (SEZs) and its impact on employment in pure region, India. The author concluded that SEZs had a positive impact on overall economic development and employment creation.

Cirera and Lakshman (2017) wrote that, the impact of export processing zones on employment, wages, and labor conditions in developing countries. The result of a systematic review showed that export processing zones had an impact on employment, wages, and labor conditions in developing countries.

Sosnovskikh (2017) analyzed the role of government in the development of special economic zones and industrial parks in Russia. The study employed a mixed research method using interviews, and questionnaires. The data was analyzed using descriptive statistics. The result showed that the development of SEZs and industrial parks face high government interference that prevented healthy competition and coordination's within economic zones. The author suggested that creating networks between private sectors, managers, and the federal government was vital.

Ciżkowicz et al (2016) conducted a study on the effect of special economic zones on employment and investment in Poland. The time period covered from 2003 to 2012 using a unique firm-level data set. The study found that special economic zones have a significant impact on employment in the country as well as in the nearest countries.

Tsertseil (2015) studied the clusters and special economic zone in Russia. The study concluded that the special economic zone in the territorial region significantly plays a crucial role in regional development in terms of creating new workplace and inter cluster interaction.

Pastusiak et al. (2015) conducted a study of local governments expect benefits from special economic zones in Poland. The time period was from 2009 to 2012. The result showed that special economic zones had a significant effect on regional development.

Mohiuddin et al. (2014) studied the special economic zone as a locomotive for green development in China. The study employed in five Providences (Guangdong, Liaoning, Hubei, Shaanxi, and Yunnan) and eight cities (Tianjin, Chongqing, Shenzhen, Xiamen, Hangzhou, Nanchang, Guiyang, and Baoding). The results showed that special economic zones were critical for industrial production. The study recommended that the Chinese government should introduce more green economy development regulation and promote a true green culture for short, mid and long term economic growth.

Mane and Salave (2014) conducted a study of aspects and pitfalls of special economic zone on the rural economy in Maharashtra. The case study was carried out in collaboration with the local community members. Interview, quantitative research, and extensive personal histories were recorded. The finding cited that special economic zones have a positive effect on the rural economy in terms of loss of farmland.

Raheem (2011) studied the impact of the special economic zone (SPZ) on human development and poverty reduction. The author suggested that SEZs has an impact on human development through employment creation, skill development, and technology advancement.

Farole and Akinci (2011) analyzed special economic zones progress, emerging challenges, and future directions. The study showed that low-carbon (green) SEZs need to concentrate on sustainable infrastructure, develop pertinent investment promotion tools, employment creation, attracting FDI and methodologies in line with green business targeting, incentives, intellectual

property protection, and marketing strategy. The study stated that it is critical to developing a carbon finance mechanism to direct a new source of funding to develop low-carbon, green SEZs in low-income countries.

Zeng (2011) conducted a study on how to do special economic zones and industrial clusters drive China rapid development. The study concluded that special economic zones significantly contribute to GDP, employment, exports, attracting foreign direct investment, technology transferring and adopting modern management practices.

Aggarwal (2010) conducted a study on the economic impacts of special economic zones in India. The result showed that a special economic zone directly stimulates investment and employment, which results in bringing about economic transformation through skill and technology upgrading, and high value-added economic activities. The author suggested that a strategic approach needs to utilize the opportunities given by SEZs.

Brautigam et al. (2010) examined China's investment in African special economic zones. The study addressed the prospect, challenges, and opportunities of SEZs in Africa. The author stressed that SEZs have a multiplier effect through market competitiveness, export-oriented production and promote wider economic transformation, however, several problems that hinder the development of SEZs. The problems include weak industrial competitiveness, lack of policy stability, poor infrastructure, poor business environment, administrative weakness, ineffective management, and poor strategic operational planning.

Fenta (2014) conducted a study of the industry and industrialization in Ethiopia. The author stated that large and medium manufacturing industries are not equally distributed among regions. Lemma (2014) wrote that, the role of Ethiopian medium and large manufacturing industries in strengthening rural-urban linkages. The concurrent mixed research design was used. The variables forward linkages, backward linkages, and strengthening rural-urban linkages. The finding showed that more than 50 percent of existing manufacturing industries relied on imported raw materials and remaining industries involved in the supply of agricultural inputs. The study concluded that Ethiopian manufacturing industries are not significantly playing a leading role as expected to contributing socio-economic development, reducing poverty and strengthening rural-urban linkages.

2.4 Gaps in Literature

In this section, a wide range of literature has been reviewed focusing on special economic zones in the manufacturing industry. However, no study has been conducted to study a comprehensive approach to address various issues related to economic transformation. There is a lack of evidence in the context of the manufacturing plant. In fact, a few researchers examined to study special economic zones in developing countries like India and Zimbabwe. Even no study conducted in the study area. From the reviewed literature, the researcher found that the overall assessment of SEZs in manufacturing firms unobserved in the presented literature. However, this sector needs special attention now. These limitations motivated the researcher to examine the dynamic of special economic zones in the manufacturing industry to economic transformation comprehensively.

2.5 Conceptual Framework

The conceptual framework variables are identified from the various reviews related literature, such as legal and institutional framework, institutional factors, infrastructure factors, socioeconomic factors, and environmental factors. These variables directly have a significant effect on bringing sustainable economic transformation. They hinder the rising of investment inflows in the study area.

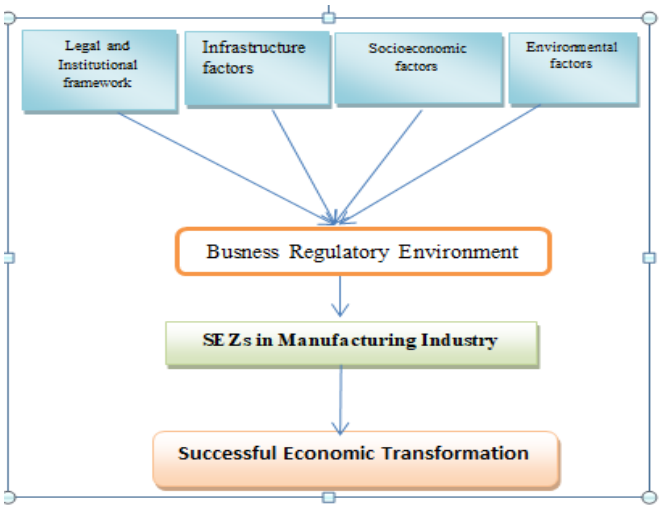


Figure 2.1: Conceptual Framework
Source: Own Creation

3. Methodology

3.1 Research Design

Research methodology is a way to systematically to solve the research problem (Kothari, 2004). As research adopted the pragmatist world-view, this research employed a mixed research method (both quantitative and qualitative approaches) thus pragmatism is a cornerstone for mixed research method studies. A mixed method design is characterized by a combination of at least one qualitative and one quantitative research component (Schoonen & Johnson, 2017). A mixed research method involves collecting, analyzing, and in some way integrating both quantitative and qualitative data in a single project (Leavy, 2017). This study applied a mixed research method. Wheeldon (2010) explains the combination of quantitative and qualitative strategies that has required new thinking about the theoretical basis for integrative research. A core of mixed method approach is the use of multiple methods belonging to both paradigm and simply more than one method from one paradigm (Kumar, 2019). Furthermore, the concurrent triangulation mixed research design was applied to examine, understand and provide insight concerning the dynamics of special economic zones for economic transformation and its actual status pertain to special economic zones. The justification behind the convergent model is that it helped the researcher to triangulate the data from quantitative and qualitative methods, which

increases the validity and reliability of the results and the conclusions. Smith (2012) depicted that the researcher collect both quantitative and qualitative data concurrently and each data set is analyzed in terms of interactions. Pool et al. (2010) noted that the use of triangulation mixed research method is viable to reduce factual errors in the data observance and revealing the behavior of checking data accuracy.

The researcher has employed concurrent triangulation mixed research design or convergent model in this study that helped me to collect, analyze, compare and contrast both quantitative and qualitative data at the same time i.e., concurrent timing. The two data approaches had equal weight and play an equally vital role in addressing the research questions.

3.2 Data Source and Method of Data Collection

The researcher considered two types of data, i.e., primary data and secondary data. The primary data are collected a fresh and for the first time, and thus happen to be original in character (Kothari, 2004). The secondary data collected by someone else, which has been passed through the statistical process (Ibid). The primary data collected from the manufacturing firm owners' experts, higher government offices and employees using questionnaires, key informant interview, and Observation. This study used both published and unpublished sources including, progress reports, journals, books, research works, and various documents. These data were used after checking the sources, suitability, and adequacy in order to ensure the dependability and credibility of the study.

In quantitative, a detailed close and open-ended questionnaire was prepared, distributed to respondents and collected successfully. The researcher prepared a standardized questionnaire for all respondents. In this study, fifty-seven (57) operational manufacturing firms were taken as a sample. The questionnaire was prepared with clear instructions and stated objectives.

3.3 Population

The total populations for this study are licensed investors that are involved in the manufacturing sector. However, the target population is those which entered the operational stage, key informants and concerned governmental offices in the Dire Dawa city.

3.4 Sample Procedure

The Dire Dawa city has 9 urban and 38 rural kebeles. The sample size was decided to be drawn from urban kebeles. Thus, most of the manufacturing firms are found in the urban areas. Accordingly, Dire Dawa city was identified for this study because of the proximity to the researcher and the number of manufacturing firms operating in the area. At present, there are 67 manufacturing industries operating in the city, though 853 private investors took investment license in manufacturing sectors starting from 1993-2017. The current operational manufacturing firms are aggro-processing, soap and detergent, textile, wood and metal work, purified mineral waters, hair food factories, plastic factories, construction material manufacturing, electronics manufacturing plant, and sack factory. The study adopted a census study. The census is attractive for a small population (e.g. 200 or less). This type of approach helps the researcher to eliminate sampling errors and includes data on all the individuals in the population. Juselius (2006) explains that, the question of how big the sample should be has, unfortunately, no obvious

answer whether the sample is “small” or “big” is a function not only of the number of observations but also of the “amount’ of information in the data (Bayai and Nyangara, 2014). It is of course scientifically rigorous to study the entire population, but for this study, the researcher took the most actively performing firms, their willingness, and other reasons. The remaining four firm’s owners were more difficult to reach them than others.

For qualitative data, the researcher used purposive non probability sampling to select 20 key informants for an interview and 10 operational firms for observation. In general, the total sample for this studies both quantitative and qualitative data was 87.

3.5 Method of Data Analysis

For quantitative, the data were analyzed using Statistical Package for the Social Science (SPSS.22) to generate various descriptive statistics in terms of frequencies, percentage, graphs, and pie-charts. The data also analyzed using a measure of central tendency and measure of variability: mode, median, range, and quartile. For qualitative, the researcher prepared in-depth interview questions to different interviewees. The raw data had been collected by using recording, writing field notes and then converted into word forms. The collected qualitative data was analyzed using narrative analysis. The secondary data was also analyzed using document review. Finally, both quantitative and qualitative data was combined using the convergence model to sketch a conclusion and recommendation.

3.6 Validity and Reliability

3.6.1 Instrument Reliability

The researcher checked the reliability from both research approach sides, i.e., quantitative and qualitative side. For quantitative, the researcher employed internal consistency to determine the reliability using Cronbach’s alpha method. The finding of the test states that the Cronbach alpha coefficient is above 0.7 and all the assertions reliable.

In qualitative, the researcher ensured the reliability using dependability that the data verified the quality of the research by examining the raw data and reducing redundant data.

3.6.2 Instrument validity

The study ensured the data using content, internal and external validity. For content validity, the researcher checked detail the explanation of research question, examined vague information, and checked the subject matter that was adequately covered.

The study checked the internal validity through gathering a multiplicity of evidence from both research approaches and then compared the questionnaire responses with stated objectives. The researcher adequately reviewed empirical studies in line with the study objectives and the research findings. The researcher ensures external validity by examining all research questions correctly answered and the number of manufacturing firms selected properly in the study. The study adopted a suitable data collection method, appropriate criteria for the mixed data model, and triangulated the previous studies with the findings. Overall, the validity ensured at the whole stage of the research process.

4. Result and Discussion

4.1 Types of Special Economic Zones

A special economic zone (SEZs) is considered as an effective tool to stimulate industrialization, economic and structural transformation, but only when implemented properly in the right context. As the survey results in Figure 4.1 reflect, 29(50.9%) of respondents replied that industrial village and industrial park exist in Dire Dawa followed by 9(15.8%) industrial park, 8(14 %) single factories, specialized zone, industrial park & industrial zone, 3(5.3%) enterprise zone, industrial park & industrial zone, 3(5.3%) industrial village, 2(3.5%) free trade zone, 2(3.5%) enterprise zone, and 1(1.7%) single factories. The most frequent value of SEZs is 9 and the range is 10, which depicts that the industrial park and industrial village exist in the study area. According to interviews with some of the manufacturing owners and experts, the attention given by the federal and regional government to constructing special economic zones/ industrial parks can be a driving force in the regional economy in terms of employment creation, exporting, improving infrastructure and generating regional revenue from taxes. They also revealed that there were various challenges during industrial park establishment in terms of site selection, investment cost, investment support and coordination, laws and regulation. Besides, interviewees indicated that improper land use planning, inadequate organizational structures involved in the village, poor land management practice, and weak coordination between the private sector and governmental offices was the result of a small number of manufacturing firms being engaged in the existing industrial villages.

The experts in trade, industry and investment bureau at various levels of government also confirmed that the absence of adequate infrastructure, i.e., power supply, sewerage system, access to land and road and services hinders the growth and expansion of manufacturing firms in the study area. Furthermore, most of these manufacturers who entered operational stage operated without having favorable environment including good land management practice. As far as the project follows up and inspectors indicated that the concerned bodies need to take responsibility and accountability to enforce those who do not enter at operational stage. We observed that the existing industrial village had improper land use efficiency, the majority of firms constructed only fences, no sewerage system, poor access to the road along inside the site, shortage of water supply, and power interruption.

To sum up, industrial park and the industrial village took the largest lion’s share of special economic zones found in Dire Dawa as a result of having a railway, aviation, and highways with the industrial establishment. Dire Dawa is an ideal place and best location for special economic zone development. However, it seeks to follow strategically approach, better policies to address all investment climate constraints. In addition, the study suggests that more qualified project follow-up and inspectors requires delivering efficient and effective services that help to address the needs and narrow the gaps of firm owners. These findings from the survey were consistent with those from the interview, and observation.

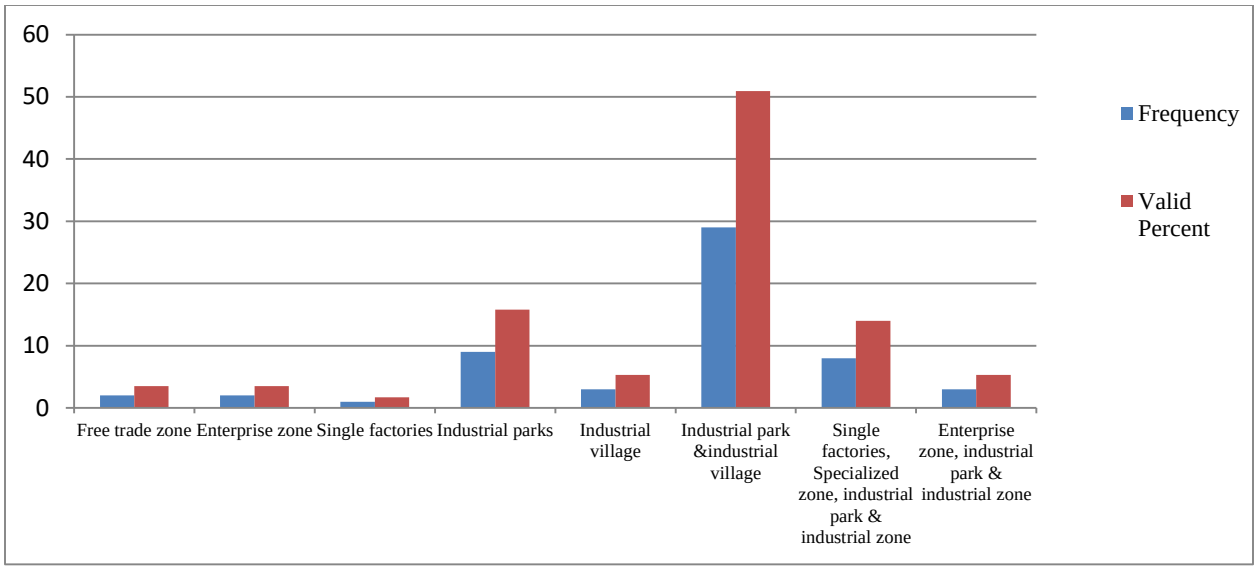


Figure 4.1: Types of Special Economic Zones
Source: Survey result, 2018

4.1.2 Significance of Special Economic Zones in Dire Dawa

Respondents were asked questions regarding the significance of special economic zones. They answered that special economic zones in Dire Dawa are very critical for speeding up economic transformation, to attract foreign direct investment and industrialization. They also revealed the existence of SEZs in the area reducing regional disparities if properly manages the industrial parks. Respondents agreed that SEZs/ industrial parks significantly contribute to increasing export products, reduce unemployment and poverty. Furthermore, they explained that SEZs is essential for providing essential service and facilities for manufacturing industries, promoting regional economic integration, an appropriately regulating business environment, innovation, and skilled manpower. It initiates manufacturing firms to invest in this park due to implementing one-stop shopping administration services.

Based on interviews held in this study, the most significant and multiplier effect of special economic zones were identified as the best and urgent solution for socioeconomic problems, improving trade efficiency, and adoption of modern technology. It has also a significant effect on skill upgrading, increasing foreign direct investment, and job creation for many citizens. Interviewees indicated that SEZs promotes the inflow of foreign direct investment, export product diversification, reduces regional disparity, resulting in generating government revenue, and build the city images through the provision of quality infrastructure and services.

These findings imply that special economic zones can bring a multiplier effect as well as a spillover effect in the regional economy. So, a city government/Administration should create favorable environment to attract potential investors in the area. The survey result was consistent with interviews that special economic zones have a multiplier effect on national as well as the regional economy.

4.1.3 The Nature of Successful Special Economic Zones (SEZs)

Figure 4.2 shows that 37(65%) of respondents revealed that successful special economic zones seek to have consistent legal and institutional framework followed, 10(18%) smooth business environment, 3(5%) consistent legal and institutional framework, and 3(5%) we do not know. 2(3%) of respondents showed that SEZs requires infrastructure, consistent legal and institutional framework, 1(2%) strong business interest and integrated regional development plan and 1(2%) strong and consistency policy environment. The most often value for achieving successful SEZs are 8 and the range is 8. This indicates that SEZs requires smooth investment climate to speed up industrialization and economic transformation in the study area.

Respondents in this study were asked about the characteristics of special economic zones. They also confirmed that it has different characteristics through the development of innovation, technical, managerial and entrepreneurial skills upgrading. It encourages creating a smooth business environment and a strong commitment from political and managerial leadership. Special economic zones help to create strong industrial linkages and value chains between various manufacturing industries. The interviews disclosed that there are various things that make the special economic zones unique, such as infrastructure, governed under a special legal framework, and favorable investment climate. Thus, it seeks to improve the government structure to administer more efficiently and effectively, receiving import and export duty-free tax exemption and income tax incentives. The results of the interviews were consistent with the findings.

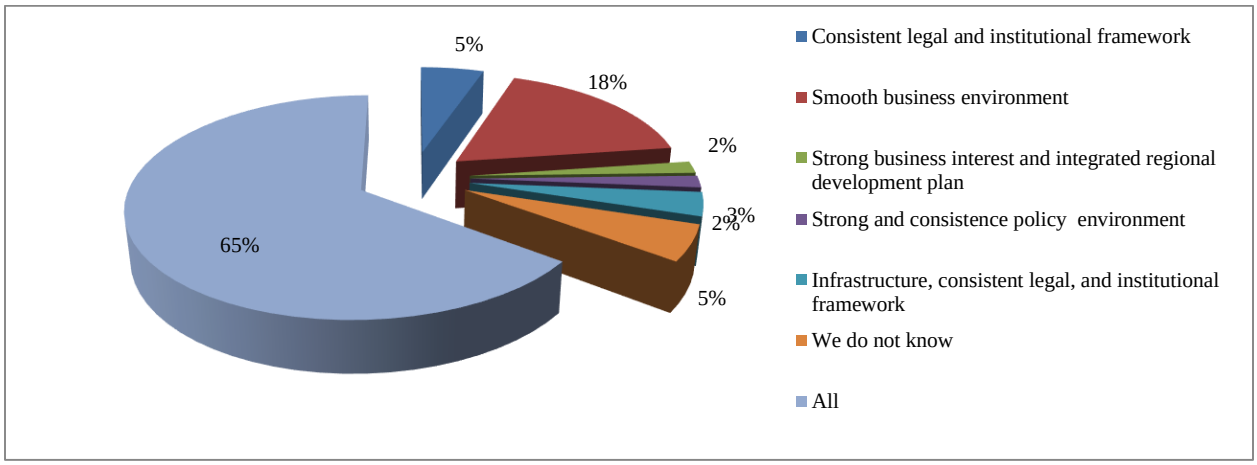


Figure 4.2: The Nature of Special Economic Zones
Source: Survey result, 2018

4.1.4 The Requirement of Special Economic Zones to succeed in Economic Transformation

Special economic zones provide an outstanding business environment for manufacturing industries (both domestic and foreign investments). But it requires a clear and transparent business regulatory and policy framework to attract foreign direct investors. SEZs seeks policy certainty, political stability, safety and security in improving the national as well as regional economy. The respondents were asked the question is it crucial to place the requirement of

special economic zones to successful economic transformation? They answered that 53(93%) revealed that that "YES" special economic zones is an effective instrument to successful economic transformation followed, 1(2%) "No" and 3(5%) we do not know.

During the interviews, firm owners and government higher officials from the trade, industry and investment bureau clearly stated that it is very critical to place the requirement of special economic zones to bring effective regional economic growth through . The special economic zones can bring a dynamic key result through creation of a good institutional environment, adequate investment incentives, skilled manpower, attracting a wide range of foreign direct investments to accelerate industrialization, improve infrastructure, high-technology development, modernization and urban expansion. In addition, it can contribute to economic growth by increasing regional GDP and minimizing idle workers. The study results were consistent with interviews. The Table below 4.1 shows that the requirement for special economic zones.

Table 4.1: Requirement for Special Economic Zones

Item	Frequency	Percent
Yes	53	93%
No	1	2%
We do not know	3	5%
Total	57	100%

Source: Survey result, 2018

4.1.5 The Effect of Special Economic Zones to Economic Transformation

The Figure 4.3 survey result shows that 44(77.2%) of respondents revealed that special economic zones have a positive effect on regional economic development by industrial upgrading, technology transferring, strengthening various labor outcomes, getting effective financial incentives and improving firm's performance. 7(12.2%) of respondents depicted that strengthening various labor market outcomes, 2(3.5%) export product diversification, 2(3.5%) upgrading industrial & technology transferring 1(1.8%) improving firms' performance and 1(1.8%) getting effective financial incentives can bring successful economic transformation.

Respondents were asked about the effect of special economic zones for economic transformation, employment, poverty reduction, human development, and investment. Their responses were given one by one as of the following statements. First, they also confirmed that SEZs significantly contribute to economic transformation in terms of attracting foreign direct investment, regional employment creation, quality infrastructure, technical and managerial development, accelerate industrialization, and regional economic integration. They also indicated that SEZs promote exports diversification and better integration between various governmental offices. In fact, it is indicated that special economic zones are an effective tools for employment, poverty reduction, human development and investment in terms of reducing crime and violence, quality of life for all residents, managerial and technical skill upgrading, technology transferring, and innovation. Third, respondents agreed that it can bring a significant effect on employment in terms of creating direct and indirect employment. Direct employment can create for skilled and unskilled labor (new jobs) and indirect employment (informal sectors, hotel, and cafeteria, transportation, bank and insurance, communication, automobile, tourism, recreation center

around the industrial parks). Furthermore, special economic zones can create jobs for female workers.

The interview with firm owners and government officials argue that when effectively and properly forming and functioning these industrial parks/SEZs, it is prompted to perform manufacturing firms to bring successful economic transformation. In this regard, one could argue that it has several advantages to regional development by providing better infrastructure, building new industrial cities, incentives and modern cities. Furthermore, it is a good opportunity for the city, bringing structural change and removing various constraints by providing all the required facilities to manufacturing firms.

The main reason is that establishing industrial parks/SEZs in the area are very critical for create a competitive environment, technology exchange and production growth. During the interview, it was found that regional governments started to employ experts for these parks. However, the study suggests that it requires applying strict rules and regulation, setting up requirements and need to reach consensus with the federal government before the provided land given by the federal government. With these reservations, it can, therefore, be concluded that special economic zones/industrial parks have a positive effect on the national economy as well as regional economic growth and transformation. There also have diverse potential benefits of successful industrial parks (special economic zones), but it seeks strong government support and coordination, strong institutional building, adequate financial service provision and technical assistance to bring successful economic transformation in the study area. The findings of this study validate interview on the effect of special economic zones, which indicated that a sizable proportion of respondents has a spillover effect on regional economic development.

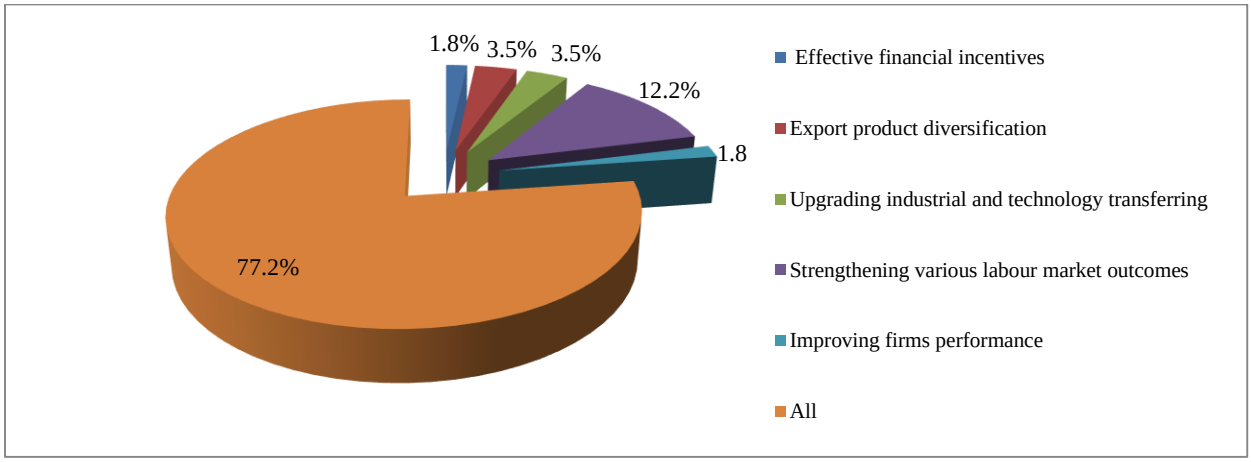


Figure 4.3: Effect of special Economic Zones

Source: Survey result, 2018

4.1.6 The Negative Aspect of Special Economic Zones

The respondents were asked about the impact of special economic zones. As can be seen from Figure 4.4 below, 26(46%) of the respondents reported that special economic zones have an impact on environmental, economic, health and social. While 15(26%) of the respondents

reported that only environmental impacts, 8(14%) of respondents environmental and health impacts. 6(10.5%) of the respondents reported that environmental and social impacts. Only 2(3.5%) of them reported that economic impacts. The most frequent value is 7, but the range is 6. This implies that it has a negative impact unless the industrial parks is properly managed. In fact, the survey found that these impacts need to improve the government service delivery system. The study concluded that special economic zones have a negative impact on economic, health, social and environment. Thus, it seeks strong monitoring and enforcement of regional authorities that implementing environmental laws.

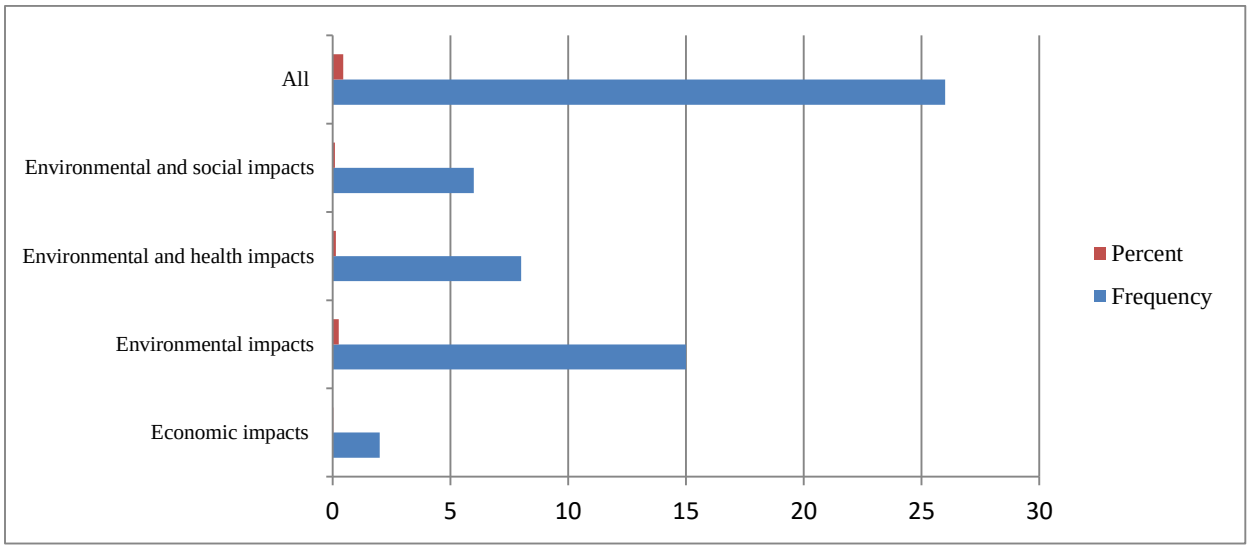


Figure 4.4: Figure 4.4: Impact of Special Economic Zones
Source: Survey result, 2018

4.1.7 Measures in Building Suitable Environment for Special Economic Zones

Table 4.2 demonstrate that 57 (100%) of manufacturing firms strongly believed that it requires to adjust and set up an exchange rate that has an effect on investment. It is evident that 57 (100%) of respondents exceedingly supposed that the administrative capacities continuously need to reform and upgrade. 56 (99.2%) of firms have the same opinion that special economic zones require quality infrastructure, but only 1(1.8%) of them disagree on the problem. The table below reflects that 46(82.2%) of respondents impressively given their opinion that it requires open policy environment while 9(16.1%) differs their opinions. But 1(1.8%) of the respondent was unsure of the ideas. 55(96.5%) of manufacturers indicated that it requires to upgrade industrial structure and its competitiveness while 2(3.5%) disagree on these issues. 55(94.8%) of respondents were strongly proved that SEZs seeks to integrate the overall trade and economic reform agenda whereas 2(3.5%) opposed and 1(1.8%) unexplained the opinion. 56(43.8%) of industrialist approved that is essential to create a competitive business environment for manufacturing industries while 1(1.8%) unsure about the issues. It was evident that 56 (98.2%) of respondents either strongly agreed or agreed that building adequate financing environment very crucial for manufacturing firms while 1(1.8%) of them disagreed. The majority 57(100%)

strongly confirmed that it is very critical for improving and extending the scale, quality and attractiveness of the investment. This finding implies that special economic zones require building a suitable environment to attract the potential developer in the study area. Therefore, this suggests that the administration with the collaboration of the federal government seeks to create a conducive environment and quality infrastructure before attracting the investment. In addition, it seeks to set criteria and check the capability of manufacturers before delivering the available resource.

Table 4.2: Building Suitable Environment for Special Economic Zones

Responses In %	**EXCRAC**	**CRUAC**	**AQINFRA**	**COPENVI**	**UISC**	**IOTERA**	**CCBE**	**AFE**	**IESQCAI**
Strongly agree	63.2	57.9	54.4	39.3	47.4	40.4	54.4	61.4	54.4
Agree	36.8	42.1	43.8	42.9	49.1	54.4	43.8	36.8)	45.6
Disagree	-	-	1.8	12.5	3.5	3.5	-	1.8	-
Strongly disagree	-	-	-	3.6	-	-	-	-	-
Undecided	-	-	-	1.8	-	1.8	1.8	-	-
Median	5	5	5	4	4	4	5	5	5
Upper quartiles	5	5	5	5	5	5	5	5	5
Minimum	4	4	3	1	3	1	1	3	4
Maximum	5	5	5	5	5	5	5	5	5

Source: Survey result, 2018

BN: EXCRAC=Setting up exchange rate adjustment center, RUAC= continuously reform and upgrade administrative capacities, AQINFRA= Availability of quality infrastructure, COPENVI =comparatively open policy environment, UISC = Upgrade industrial structure and competitiveness, IOTERA = Integrate overall trade and economic reform agenda, CCBE = Creating a competitive business environment, AFE = Adequate financing environment, IEQCAI = Improving and extending the scale, quality and attractiveness of investment.

4.1.8 The Effect of Research and Development on manufacturing Industries

The result revealed that 47(82.5%) of the respondents were represented there is no research and development institute in the study area. These respondents reported that they had not benefited from the transfer of new technologies and know-how because of the absence of research and development activity. According to these respondents, the consultancy, and government support needs to create linkage with universities and establish an institute to improve their entrepreneurial skills and innovations. 6(10.5%) of the respondents reported that they have industry and university linkages. 2(3.5%) of them have linkage with a government organization, only 1(1.75%) manufacturing firms personally spent on research and development. But 1(1.75%) of respondents replied that they have linkage with government R&D institute. The implication of this is that the majority of respondents replied that there is no research and development institute in the study area to support manufacturing firms and only six firms have industry-university linkages. We think that research and development are vital to manufacturing industries for

technological promotion, firm's productivity, innovation, and reproduction. Thus, this study suggests that the research and development institute should be established to improve and upgrade their creativity to fulfill the manufacturer expectations. The study concluded that the Dire Dawa Administration needs to establish a research and development institute or create strong industry-university linkages. Furthermore, the administration requires to give due attention to R&D to achieve sustained economic growth and transformation. Figure 4.5 shows that research and development of manufacturing firms.

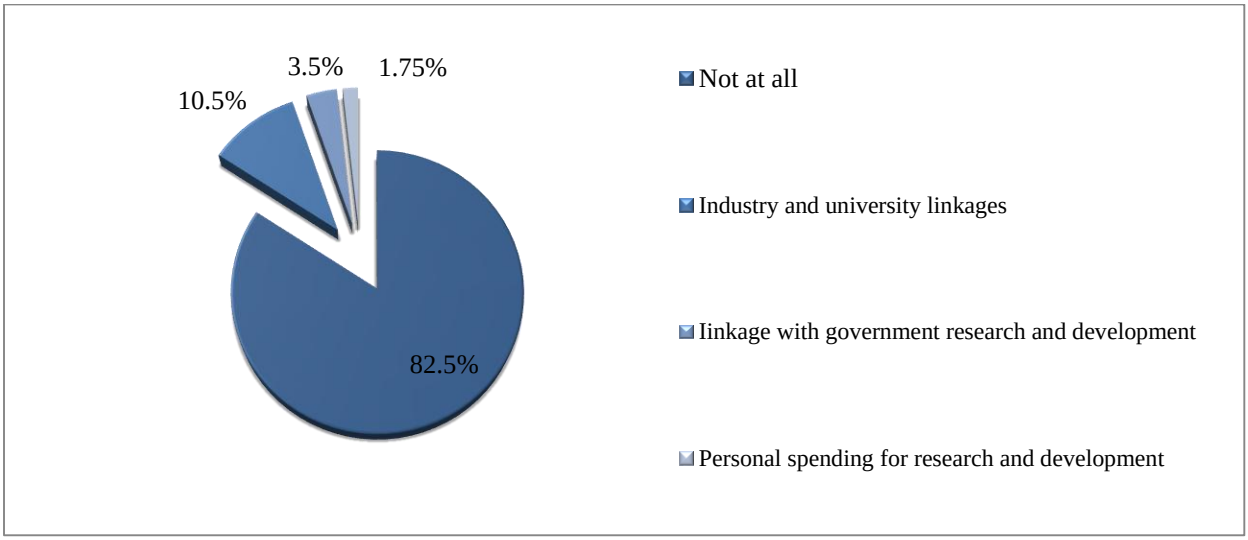


Figure 4.5 Research and development
Source: Survey result, 2018

4.2 Discussions

4.2.1 Types of Special Economic Zones Discussions

In fact, different researchers (DDDSSEZs, 2014; Aggarwal, 2010, Akinci and Crittle, 2008, Akbariet al., 2018, Huang et al., 2017, Cirera and Lakshman, 2017) earlier argue that there are various special economic zones, such as a free trade zone, export processing zone, enterprise zone, free ports, single factory zones, and specialized zones. The ideas of growth pole theory are functioning in free economic zones, technological parks, and industrial parks, which consists the overall socioeconomic development. The finding of this study reveal that the majority of firms indicate that industrial village and industrial parks exist in Dire Dawa. Thus, the findings in this study corroborate Ish-Shalom (2006) argued that modernization is the foundation of growth and prosperity to modern, democratic society by enabling education, which in turn promotes social and political issues.

4.2.2 The Unique Features of SEZs Discussions

The majority of manufacturing firms reflected that SEZs has various characters to rapid economic growth and transformation. There are several characters of successful special economic zones. The survey reveals that successful special economic zones seek to have a consistent legal and institutional framework, smooth business environment, strong business

interest and integrated development plan, strong and consistency policy environment, and infrastructure development. This finding is associated with existing studies (Raheem, 2011).

4.2.3 The Significance of SEZs Discussions

Special economic zones have an effect on the economy, social and environment. The finding is aligned with the previous studies (Sosnovskikh, 2017; Sorokina, 2014; Raheem, 2011; Ciżkowicz et al., 2016; Pastusiaket al., 2015; Rybalkin and Shcherbanin, 2012).

4.2.4 The Negative Impact of SEZs Discussions

It has a negative impact on economy, environmental, health and social although having its unique features (Mane and Salave, 2014). Thus, it needs to consider environmental sustainability due to global issues. And also it needs government special attention to develop a good implementation strategy that the firm to attach technology and human development into the specific economy sector.

4.2.5 Measures in Building Suitable Environment of SEZs Discussions

Special economic zones need to build a suitable environment in order to bring successful economic transformation. These include adjusting the exchange rate, upgrading administrative capacities, adequate infrastructure, an open policy environment, adequate financial access, and the need to integrate the overall trade and economic reform agenda.

4.2.6 Research and Development

Research and development has a significant impact on the manufacturing sector. The result depicts that there is no research and development institute in the study area to promote the creativity of firms. We believe that research and development is critical to improve firms' productivity, increase creativity, and innovation. The study aligned with empirical studies in the R&D context (Bronzini and Piselli, 2006; Griliches, 1964; and Nadir, 1980; Bronwyn et al., 2010; Eberhardt et al., 2013; and WU, 2010).

5. Conclusion and Recommendations

5.1 Conclusions

Based on research findings, it is adequate to conclude that special economic zones are an effective tool for successful economic transformation, especially while creating a good investment climate and implementing investment policy (rules and regulation) at ground level. There are an industrial village and industrial park exist in Dire Dawa. The study emphasizes that special economic zones/industrial parks are playing a key role for successful economic transformation in terms of foreign direct investment flows, employment, market competitiveness, strengthening industrial linkages, improved efficiency, and quality; export earnings, accelerated industrialization and urbanization. It has its unique characters in order to bring successful economic transformation. Besides, it has also a negative impact on the economy, society, and environment unless combined with environmental sustainability to reduce climate change.

Therefore, for this, it requires a special measurement to handle the special economic zones in line with environmental laws and regulation.

5.2 Recommendations

Special economic zones are very critical for sustainable economic growth and development. Thus, the Dire Dawa city administration should seriously focus on developing, implementing, building strong institution to attract potential foreign direct investment. It seeks to promote innovation, and enhance research and development activities. The city administration should prepare essential requirement for SEZs those who need to invest in the special economic zones/industrial park. And also it needs to identify each project that is suitable for industrial park locations. Furthermore, the manufacturing firms' seeks to distinguish the investment potential areas, business regulations, labor rules and environmental laws that apply in the proposed new manufacturing location.

References

Abdusharipovich (2018). Special Economic Zones as an Engine of Regional Economic Development: the Best Practices and Implications for Uzbekistan. *International Journal of Management Science and Business Administration*, *4*(4), 48-55.

Adugna (2014). Impacts of the manufacturing sector on economic growth in Ethiopia: akaldorian approach. *Journal of Business Economics and Management Sciences*, *1*(1), 1-8.

AfDB (African Development Bank) (2013a) 'At the Center of Africa's Transformation: Strategy for 2013-2022'. Abidjan:

Aggarwal (2007). *Impact of special economic zones on employment, poverty, and human development* (No. 194).Working Paper.

Aggarwal (2010). Economic impacts of SEZs: Theoretical approaches and analysis of newly notified SEZs in India.

Akbari, Azbari, & Chaijani (2018). Performance of the Firms in a Free-Trade Zone: The Role of Institutional Factors and Resources. *European Management Review*.

Akinci & Crittle (2008). Special economic zones: Performance, lessons learned, and implications for zone development. *Washington DC: The World Bank*, E3.

Babita (2017). Output and Input Efficiency of Special Economic Zones (SEZs) in India: A Case of Visakhapatnam Special Economic Zone (VSEZ). *The Indian Economic Journal*, *65*(1-4), 107-118.

Bayai & Nyangara (2013). An analysis of determinants of private investment in Zimbabwe for the period 2009-2011.

Belussi & Caldari (2008). At the origin of the Industrial district: Alfred Marshall and the Cambridge school. *Cambridge Journal of Economics*, *33*(2), 335-355.

Brautigam, Farole & Xiaoyang (2010). China's investment in African special economic zones: Prospects, challenges, and opportunities.

Bronwyn, Pierre, Bronwyn, & Jacques (2010).Measuring the Returns to R&D. *MERIT Working Papers*.

Bronzini & Piselli (2009). Determinants of long-run regional productivity with geographical spillovers: the role of R&D, human capital and public infrastructure. *Regional Science and Urban Economics*, *39*(2), 187-199.

Capello, R. (2011). Location, regional growth, and local development theories.*Aestimum*, 1-25.

Chakraborty, Gundimeda, & Kathuria (2017). Have the Special Economic Zones Succeeded in Attracting FDI?—Analysis for India. *Theoretical Economics Letters*, *7*(03), 623-642.DOI:10.4236/tel.2017.73047

Cheesman (2012). *Special economic zones & development: Geography and linkages in the Indian EOU scheme*. Development Planning Unit, University College London.

Cirera & Lakshman (2017). The impact of export processing zones on employment, wages and labour conditions in developing countries: a systematic review. *Journal of Development Effectiveness*, *9*(3), 344-360.

Ciżkowicz, Ciżkowicz-Pękała, Pękała, & Rzońca (2016). The effects of special economic zones on employment and investment: a spatial panel modeling perspective. *Journal of Economic Geography*, *17*(3), 571-605.

Central Statistic Agency (2012).*Report on Large and Medium Scale Manufacturing and Electricity Industries Survey*, pp.21-22

Eberhardt, Helmers & Strauss (2013). Do spillovers matter when estimating private returns to R&D?. *Review of Economics and Statistics*, *95*(2), 436-448.

Farole & Akinci (2011).*Special economic zones: progress, emerging challenges, and future directions*. The World Bank.

Fenta (2014). Industry and Industrialization in Ethiopia: Policy Dynamics and Spatial Distributions. *European Journal of Business and Management*, *6*(34), 326-344.

Griliches (1964). Research expenditures, education, and aggregate agricultural production function. *The American Economic Review*, 961-974.

Huang, Van, Hossain, & He (2017). Shanghai Pilot Free Trade Zone and Its Effect on Economic Growth: A Counter-Factual Approach. *Open Journal of Social Sciences*, *5*(09), 73.

International Standard of Industrial Classification (2008).Department of economics and social affairs. *Statistics Division ISIC Revision*-4.1, 85, United State.

Ish-Shalom (2006). Theory gets real, and the case for normative ethics: Rostow, Modernization Theory, and the Alliance for Progress. *International Studies Quarterly*, *50*(2), 287-311.

Juselius (2006). *The cointegrated VAR model: methodology and applications*. Oxford university press.

Komarovskiy & Bondaruk (2013).THE ROLE OF THE CONCEPT OF "GROWTH POLES" FOR REGIONAL DEVELOPMENT.*Journal of public administration, finance and law*, (4), 31-42.

Kothari (2004). *Research Methodology: Methods and techniques*. New Age International.

Kumar (2019). *Research methodology: A step-by-step guide for beginners*. Sage Publications Limited.

Leavy (2017).*Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. Guilford Publications.

Lemma (2014).The Role of Ethiopian medium and large scale manufacturing industries in strengthening rural-urban linkages. *A mixed research approach*: *International Institute for Science, Technology, and Education (IISTE)*, *4*(9), 142-151.

Lin (2012). *New structural economics: A framework for rethinking development and policy*. The World Bank.

Mane & Salave (2014).Aspects and Pitfalls of Sez on Rural Economy of Maharashtra. *IOSR Journal of Economics and Finance (IOSR-JEF)*, *3*(3), 01-06.

Moberg (2015). The political economy of special economic zones. *Journal of institutional economics*, *11*(1), 167-190.

Mohiuddin, Regniere, Su, & Su (2014).The special economic zone as a locomotive for green development in China. *Asian social science*, *10*(18), 109.

Morgan (2014).Pragmatism as a paradigm for social research. *Qualitative Inquiry*, *20*(8), 1045-1053.

Munyoro, nczomani, & mhere-chigunhah, b. L. E. S. S. I. N. G. The significance of special economic zones in the economic development of zimbabwe: a case study of zim asset.

Nadir (1980). Contributions and determinants of research and development expenditures in the US manufacturing industries.

Nainggolan, Ramli, Daulay, & Rujiman (2014).An analysis of determinant on private investment in North Sumatra Province, Indonesia.*Journal of Management Research*, *7*(1), 38-57.

National Policy Conference (2017).*Economic Transformation on Discussion Document.* South Africa, Midrand.

Pastusiak, Jasiniak, & Kaźmierska (2015). Should Local Governments Expect Benefits from Special Economic Zones? The Case of Poland. *International Journal of Social, Behavioral, Economic, Business and Industrial Engineering*, *9*(3), 913-919.

Pearce (2012). Mixed methods inquiry in sociology.*American Behavioral Scientist*, *56*(6), 829-848.

Pool, Montgomery, MorarMweemba, Ssali, Gafos, & Hayes (2010). A mixed methods and triangulation model for increasing the accuracy of adherence and sexual behaviour data: the Microbicides Development Programme. *PloS one*, *5*(7), e11600.

Raheem (2011). Impact of the special economic zone (spz) on human development and poverty reduction: an Indian experience. *International journal of multidisciplinary research*, *1*(7).

Rybalkin, Shcherbanin, Yu. (2012). Mezhdunarodnye ekonomicheskieotnosheniya. Uchebnik dlya student vuzov, obuchayushchikhsya poekonomicheskim spetsialnostyam, 8-e izd, Moskva, YuNITI-DANA

Schoonenboom, & Johnson (2017).How to Construct a Mixed Methods Research DesignWie man in Mixed Methods-Forschungs-Design konstruiert.*KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie*, *69*(2), 107-131.

Smith (2012). Mixed methods research design: a recommended paradigm for the counseling profession. *Ideas and research you can use: VISTAS*.

Sorokina (2014). Special Economic Zones of Russia.Alternatives for development of Transport Hub SEZs.

Sosnovskikh (2017).Role of the Government in the Development of Special Economic Zones and Industrial Parks in Russia.

Stiglitz, Yitu Lin, Monga, Zhao, Kanbur Zhang, Lee, Page, Oqubay, Bhorat, Steenkamp, Shimelis, Boly and Kere (2017). *Industrialize Africa: Strategies, policies institutions, and financing. Africa Development Bank Group, pp 1-228.*

Tsertseil J. (2015). The clusters and special economic zone: The improvement in the development of the region. *Journal of Global Economics, 3:*153. DOI:10.4172/2375-4389.1000153

United Nations. Economic Commission for Africa (2013).*Economic transformation for Africa's development:* Macro-Economic Policy Division C-10 Meeting, Washington D.C

Vaidya (2017). A study of Special Economic Zones (SEZs) and its impact on employment in the Pune region.*We'Ken-International Journal of Basic and Applied Sciences*, *2*(2), 37-40.

Wheeldon (2010). Mapping mixed methods research: Methods, measures, and meaning. *Journal of Mixed Methods Research*, *4*(2), 87-102.

Windle (2010). Secondary data analysis: Is it useful and valid?.*Journal of Peri-Anesthesia Nursing*, *25*(5), 322-324.

Worrall, Vrolijk, Mason, & Balchin (2015). BASELINE ON ECONOMIC TRANSFORMATION.

Wu, Wei, Y., Li, Q., & Yuan (2018). Economic transition and changing the location of manufacturing industry in China: a study of the Yangtze River Delta. *Sustainability*, *10*(8), 2624.

Zeng (2011).*How do special economic zones and industrial clusters drive China's rapid development?*.

The World Bank.