Analysis of Industrial Parks Development in Ethiopia

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Abstract

This paper examines the economic contribution achieved by the introduction of the industrial park concept in Ethiopia. The study relied on both primary and secondary data obtained from various sources. Both descriptive and analytical methods were employed as data analyses methods of the research. The study found that even if industrial parks are creating job opportunities, 75% of their employees were not happy with their working conditions as a result of low wages. The study also revealed that there were no backward and forward leakages between manufacturing companies working in the industrial parks and domestic companies and suppliers. The construction of almost all of all industrial parks in Ethiopia was financed by European Investment Bank, the World Bank and other financers. Hence, there are concerns as to how the Ethiopian government would pay back the money. Those concerns emanate from reports that indicate some industrial parks are not still attracting enough domestic and foreign investors who are interested to invest in the parks. Based on the results of the analyses, the author concludes that, despite the significant potential that the industrial park concept presents to Ethiopia's ambitious development agenda, a number of considerations must be given to the wider regional expansion of this concept based on the experience. Furthermore, the side-effects of industrial parks on investment climate outside the parks are not thoroughly dealt with because parks are at their early stage. These issues need further research.

Keywords: economic zones, industrial parks, development, job opportunities, export, foreign currency

1. Introduction

Ethiopia is a predominantly agricultural country which did not undergo meaningful changes in industrial structure until recent years. In this regard, the current Ethiopian government has been trying to transform the

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economic structure by increasing the contributions of the industrial sector to the gross domestic product (GDP).

According to Solomon (2016), the first manufacturing industry in Ethiopia was established in the 1920s as a private household cottage enterprise. The first group of 27 factories, mostly owned by foreigners, commenced operation by producing limited outputs. The formal institutionalization effort of the manufacturing sector dates back to the late 1950s and early 1960s when the imperial government developed a new policy to shore up the economy by attracting foreign investment.

By the early 1970s, Ethiopia's industrialization policy included a range of fiscal incentives, direct government investment, and equity participation in private enterprises (Solomon 2016). In 1975, the military government nationalized most industries and reorganized them into state-owned corporations. On February 7, 1975, the government adopted a socialist economic policy. The policy identified three manufacturing sectors which were left to government prerogatives. Those included basic industries that produced goods serving other industries as input and that had the capacity to create linkages in the economy; industries that produced essential goods for the general population and industries that produced drugs, medicine, tobacco, and beverages. The 1975 nationalization had negative repercussions on the national economy as it blocked foreign private investment (Solomon 2016).

The idea of rapid industrialization by increasing the contributions of industrial development to GDP emerged in 2002-2003, when the government of Ethiopian Peoples Revolutionary Democratic Front (EPRDF) developed the country's first Industrial Development Strategy (IDS). The IDS was then translated into action by various sub-sector strategies and by the successive development plans including the Sustainable Development and Poverty Reduction Program (SDPRP) 2002–2005; the Plan of Action for Sustainable Development and Eradication of Poverty (PASDEP) 2005–2010; the Growth and Transformation Plan (GTP I) 2010–2016; and the Growth and Transformation Plan (GTP II) 2017–2022 (Gosaye 2016).

In this regard, a full-fledged IDS was formulated in Ethiopia, 2002/2003, and translated into action by various sub-sector strategies and by the successive development plans such as Sustainable Development and Poverty Reduction Program (SDPRP) 2002–2005, the Plan of Action for Sustainable Development and Eradication of Poverty (PSADEP) 2005–2010, Growth and Transformation Plan (GTP I) 2010–2016, and Growth and Transformation Plan (GTP II) 2017–2022 (Gosaye 2016).

Since then, Ethiopia has been striving to be the hub of light manufacturing industries in Africa by 2025, placing an ambitious plan to develop world-class industrial parks with hard and soft infrastructure. In this regard, in the Ethiopian Government Growth Transformation Plan II (GTP-2), the government has planned to build 10 industrial parks in selected areas of the country. Some of the industrial parks such as the Hawassa and Bole Lemi Phase I are already operational. Presently, the government has been seriously working to expand industrial parks all over the country by allocating more than 750 million USD obtained from sale of Eurobond (Gosaye 2016).

The development of industrial parks is not an easy task. It is demanding especially in developing countries for it requires huge finance, appropriate infrastructure, legal framework and getting potential investors. However, the concept can positively support economic development based on a philosophy of integrating relatively different functions (e.g. production, services, housing, relaxation and higher education) into an industrial area with the majority of industrial production and services offering high economic turnover and employment opportunities (Alebel, Mulu, Girum and Berihu 2017).

On the other hand, the development of industrial parks must pay attention to one of the basic aims of an economy that is to allocate both industrial production and services sectors in such a way that progress of a region where a park is built improves. Incorrect allocation of the sectors results in an increase of existing differences among various regions, which is verified

by regional development theories, be they convergent or divergent (Vidová 2010).

Although the Ethiopian government has been working to expand industrial parks all over the country, little research has been done on the progress and the economic contribution of industrial parks in Ethiopia. Aware of that gap, this study attempted to minimize the research gap by examining the relationship between industrial park development and its economic contribution in Ethiopia. In doing so, the study will fill the gap in the literature related to the establishment of special economic zones (SEZs) and industrial parks in Ethiopia. The main objective of this research is, therefore, to examine the relationship between industrial park development and its economic contribution in terms of employment, foreign currency earning, environment, labor right, and government debt in Ethiopia.

The Concept of 'Industrial Parks'

Literature shows that the early economic zones were established in 1704 in Gibraltar and in 1819 in Singapore. It is also documented that those zones focused on attracting shipping trade and were successful as manufacturing hubs and trading entrepôts due to their strategic geographical locations near a critical mass of shipping traffic. A modern special economic zone (SEZ) model was established in Shannon, Ireland in 1959, and the concept of SEZ has since spread internationally (FISA 2008); but, most zones before the 1970s were clustered in industrial countries (Farole and Gokhan 2011). However, since this time, starting in East Asia and Latin America, these zones have been designed to attract investment in labour-intensive manufacturing. For example, China's leadership in the SEZ concept began in 1978, when the government adopted an 'open door' policy (Zeng 2015).

According to Farole (2011), in 1986, there were 176 zones in 47 countries; by 2006, this number rose to 3500 zones in 130 countries. These zones were concentrated primarily in Asia and the pacific region (mainly China), as well as Latin America, central and eastern Europe and central Asia (FISA 2008). Out of the overall 2,301 zones in 119 countries, China's share was approximately 19 percent of these zones, and over half of them were privately owned and operated.

Although several sub-Saharan African countries launched zone programmes in the 1970s (Liberia in 1970, Mauritius in 1971, Senegal in 1974, to name few of them), the zones were different from the modern large-scale multi-use zones that are discussed above and these African countries did not operationalize their programmes until the 1990s or 2000s (Farole 2011). Zeng (2015) listed African zone programmes by decade of launch as follows: 1970s (Liberia, Senegal, Mauritius); 1980s (Djibouti, Togo); 1990s (Burundi, Cameroon, Cape Verde, Equatorial Guinea, Ghana, Kenya, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Sudan, Uganda, Zimbabwe); 2000s (Gabon, Gambia, Mali, South Africa, Botswana, Zambia, Eritrea, Mauritania, DRC Congo, Tanzania, Ethiopia).

'Industrial clusters' are groups of geographically proximate companies within a similar industry, which are believed to enhance employment, diversify exports and transfer technology and managerial know-how. Presently, industrial cluster policies are widely used tools for local and regional economic development planning. Crucial elements of the industrial cluster model include the provision of a collaborative and competitive environment, an appropriate geographical location and proximity to resources, related and supporting firms, and state regulations and strategic programs that facilitate innovation and productivity (Delgado et al. 2016; Feser et al. 2008; Ketels 2013; Krugman 1991; Porter 1990; Schmitz and Nadvi 1999). Industrial parks form one type of SEZ.

Industrial parks are largely manufacturing-based sites, which are normally expected to offer a broad set of incentives and benefits. The concept is based on a number of principles including the allocation of specialized infrastructure in selected areas with the aim of decreasing costs connected to building infrastructure, and, furthermore, capability of a country to attract new investors, which would eliminate social and ecological impacts caused by industrial production (Vidová 2010). These parks can include Mega parks, University parks, Entrepreneurship parks, parks with laboratories and technological support, parks with intensive infrastructure, parks with virtual offerings and e-community parks (Angulo-Cuentas et al.

2013). Industrial parks are usually located on the edges of, or outside the main residential area of, a city, and are normally provided with good multiple transportation access, including roads and highways, rail links, airports and ports (Geng and engxin 2009; Ratinho and Henriques 2010).

The idea of setting land aside through the industrial park type of SEZ is based on the ability to concentrate dedicated infrastructure in a delimited area to reduce the per-business expense of that infrastructure. Such infrastructure includes roadways, railroad sidings, ports, high-power electric supplies (often including three-phase electric power), high-end communications cables, large-volume water supplies, and high-volume gas lines. The initiative should also attract new business by providing an integrated infrastructure in one location. Lastly, the project should set aside industrial uses from urban areas to try to reduce the environmental and social impacts of the industrial uses and, in doing so, provide localized environmental controls in line with the specific needs of an industrial area.

The development of industrial parks is an important factor for any economy to actively participate in the global economic system. Their contribution has been measured by the number of new jobs created and the income received by local and national governments by paying taxes and duties from firms benefiting from the infrastructure made available through their involvement in attracting investors. That means, the more productive the industry and more efficient the production, the higher the company's results and the higher the benefits to government. As well as attracting innovative businesses that can generate jobs, higher incomes and, therefore, higher tax take, industrial parks can also exploit the local potential in supporting knowledge-based business development and an environment where companies can interact with other supporting knowledge suppliers thus facilitating business and local development (Meşter and Bugnar 2013). Serving as important development tools adopted by many industrialized countries (Hakansson and Johanson 1993), the growth sustained by the technology used in the industrial park opens opportunities for creating new jobs, improving local productivity and maintaining a competitive environment in the respective country

(Markusen et al. 1986). Producers operating in an industrial park can get greater benefits at lower costs. The chance to obtain additional benefits by supporting local development and the opportunity to create new jobs along with the income growth can positively influence local economic development (Castells and Hall 1994).

According to the theory, productivity is the relationship between inputs and outputs in the production process. The efficient transformation of inputs into outputs, thus stimulating productivity, is important for a region to become competitive from an economic standpoint. In this regard, industrial parks are facilitating productivity by providing the classical production factors such as land, labour, and capital, as well as the use of neo-factors such as information and entrepreneurship to improve the input-output ratio or productivity (Kresl 1995).

Industrial parks are based on knowledge and rely on the intensive use of technology. They are representatives for the regional economic development and can lead to a decisive effect of stabilizing the economic reforms. The innovation capacity is the main source of competitiveness of a producer. Innovation stimulates economic growth and development and plays an important part in acquiring the producer's performance and also in attaining long-term competitiveness (Howells 2006). Consequently, the local productivity will increase along with the productivity of labour and capital factors (Kendrick 1977).

Despite the many potential benefits which the industrial park concept can bring, a lack of proper management of the parks can also result in social, environmental and economic challenges (Kendrick 1977; Yohannes 2017). One disadvantage of industrial development is increased pollution levels through poisonous gas emissions, which, over the years, have been a major cause behind global warming. Research has also indicated that due to the financial incentives which have steered peoples' preferences towards work in industrial parks rather than in the agricultural sector, food shortages have emerged in regions of subsistence economies. The attraction of many newcomers to industry has also led to increased urbanization and the

associated problem of housing shortages, congestion, lack of green space, and health-related problems. Lastly, industrialization through SEZs has also created monopolies which ultimately lead to exploitation of consumers of the country and a huge gap between the rich and poor. (Li et al. 2018)

2. Methods of the study

The study is analytical survey, which aims to explain industrial parks development in Ethiopia. Thus, representativeness of the sample to the population was not the target of the study; instead, attempt was made to ensure validity of the data by applying purposive sampling, as suggested by Oppenheim (1992). This approach enabled to capture the views of government officials and experts, investment policy makers and consultants that closely work with the industrial park development actors in Ethiopia. Primary data was collected using a survey questionnaire as in Alleyne et al. (2006) and Paper et al. (2003). The respondents were 25 officials and experts and 7 investment policy makers and consultants in Ethiopian Investment Commission (EIC), Ethiopian Industrial Parks Cooperation, Ethiopian Ministry of Trade, Ethiopian Ministry of Finance and Economic Cooperation, Ethiopian Revenues and Customs Authority, regional labor affairs offices, Ministry of Environment Forest and Climate Change and Ethiopian Standards and Quality Authority. The questionnaires were designed to address twelve key themes including the plan and performance of industrial parks development, challenges, technology transfer, employment, foreign currency, backward and forward linkages, incentives, production, and environment. For various reasons, only 24 government officials and experts filled and returned the questionnaires. Only management members and experts were contacted in order to obtain the most relevant information about issues of the study.

This yielded an overall response rate of 90 per cent. Anonymity of respondents was fully maintained. Responses were gathered and merged according to their groups, and patterns were identified and compared (Annex 1).

Semi-structured interviews were conducted with nine managers and five investor representatives of selected industrial parks. These were Eastern Industrial park (IP), Hawassa IP and Bole Lemi IP I, George Shoe IP and Vouge IP. Data collection was undertaken between 2nd April and 10th April, 2018. A total of 14 telephone interviews that lasted for 30 minutes each were conducted. Interview respondents consisted of three general directors, three deputy directors, two operational managers and one country representative (see Table 1 for details).

Table 1. Names of the companies whose representatives were parts of this interview

Industry parks	Name of the company	Number of operational companies found in the industrial parks	%age of sample from the total companies operational in the industrial park
Eastern	Huajian Shoes Dong Fang Spinning Printing & Dyeing plc Linde Garment (Ethiopia) plc	6	50
Hawassa	Isabel PTU/ Century Garment Hela Hindochin Silver Spark/Raymond PVH	10	50
Bole Lemi	Jay Garment plc C & H Garment plc Ashton Apparel Manufacturing Lyu Shoutao Factory plc	10	40
George Shoe	George Shoes Tannery	1	100
Vouge	Velocity Garment	1	100

A number of informal interviews were also conducted with randomly selected employees of Eastern, Hawassa, Bole Lemi Phase I, George Shoe industrial parks. Questions focused on issues relating to the working environment, workers' rights, salaries and benefits. The purpose of the study was explained to the participants who were also asked for their willingness to participate in the study. Respondents' anonymity was fully maintained during data collection and reporting. Responses were gathered and grouped according to their categories and patterns were identified and

compared. This approach is descriptive in nature; therefore, the information derived from the interviews cannot be found in available open source documents and the Internet. All the data obtained from the interviews turned out to be highly valuable.

3. Results and Discussion

The private and public industrial parks considered in this study employed a total number of 45,671 employees (Table 2). The importance of industrial parks can be described by the analyses of working place creation. Hawassa IP had the highest number of employees and George Shoe IP had the lowest (Table 3.1). This finding supported the assertion that industrial parks were important in creating job opportunities.

Table 2. Indicators of employment in industrial parks in Ethiopia (July 2017 – April 2018)

Industrial Parks (IP)	Total employees	Female	Male	Turnover rate
Bole Lemi IP	14,555	12,767	1,788	0.08
Eastern Industrial parks /Private IP/	13,200	7,134	6,066	0.05
Hawassa IP	16,185	14,170	2,015	0.06
George Shoe IP /Private IP/	426	254	172	0.004
Velocity IP /Private IP/	1,305	1,088	217	0.06

Source: Extracted from data of Ethiopian Investment Commission (2018)

The gender composition of the employees indicates that women account for 75.5 % of the employment opportunities and the male the remaining 24.5%. This suggests that the industrial park concept provides a significant opportunity for women and contributes to social development. The highest rate of employee turnover, which was 8%, was reported at the Bole Lemi I IP. Respondents in Addis Ababa explained that this high turnover rate was mainly because employees leave their jobs due to the low wages in comparison to wages generally available in the city. Many respondents working in Bole Lemi IP stated that the average monthly wage was 1,002 ETB (around USD 43 at the time of data collection). Low wage and high expenses of transportation, housing and other costs put the manufacturing

sector under challenging situations. Turnover rates elsewhere (see Table 2 above and Chart 1 below) are more in line with global averages reported in World Bank (2019). Where there is low wage and productivity, retaining workers becomes difficult as it is difficult for workers to pay for the high expenses for transportation, housing and other costs. This appears to be a key challenge to the manufacturing sector in general. According to the respondents, a study conducted by the Investment Commission identified housing, transportation and other social factors such as child-care as the main causes of low levels of labour productivity, high turnover and absenteeism.

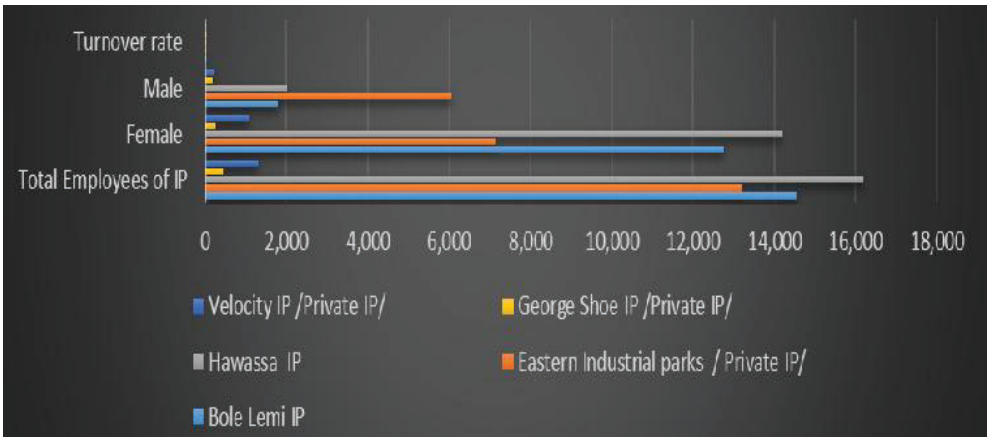

Chart 1. Industrial Parks employees, by their sex

Source: Based on calculation of Ethiopian Investment Commission data.

According to respondents from the Ethiopian Investment Commission (EIC), a study had been conducted by the commission to identify ways to overcome problems, such as low level of productivity, high turnover and absenteeism. The problem was related to housing, transportation and other social factors. Furthermore, that study had indicated that most of the workers were women. The need for a child care centre inside or near the IPs had been emphasized as a means to minimize workers' absenteeism.

The reason why more women were working in these parks was found to be the fact that women constitute a higher proportion of unemployed, unpaid family workers, and participate in informal jobs at a higher rate. Hence,

manufacturing provides formal job opportunities for many women, often for the first time (National Labor Force Survey 2013).

The importance of industrial parks can be described by the level of export and its contribution to the foreign currency earning of a nation. According to EIC (2018), from among the IPs considered in this study, the highest amount of export and foreign earning ($28,134,479.97) in 2017 was obtained by Bole Lemi IP while the lowest amount ($560,268.80) was by Velocity IP, a private industrial park (Table 3). The Commission did not set any planned targets because of the recent introduction of these parks. Therefore, efficiency could not be measured regarding the foreign currency earning expected from each park. Ethiopia exported goods worth USD 2.2 billon during this period (National Bank of Ethiopia 2017). The finding indicated that industrial parks were one of the most important means to boost export and earn foreign currency.

Table 3. Foreign currency earnings from operational industrial parks in Ethiopia, July 2017–April 2018

Industrial parks	Amount of foreign currency generated by the parks (in USD)
Eastern Industrial parks/Private IP/	$27,153,742.09
Hawassa IP	$11,602,115.87
Bole Lemi IP	$28,134,479.97
George Shoe IP /Private IP/	$3,919,493.91
Velocity IP /Private IP/	$560,268.80
Total	$71,370,100.64

Source: Extracted from EIC (2018)

Foreign currency earnings of Eastern IP and Bole Lemi IP fluctuated monthly between July 2017 and April 2018, whereas, it stayed relatively constant in the other industrial parks (EIC 2017).

Respondents believed that this fluctuation of foreign currency earnings happened because of the difficulty to access foreign exchange, which would remain a problem impacting investments in terms of growth potential, maintenance, spare parts replacement, and raw material availability. In addition, shortage and interruption of electrical power supply contributed to the fluctuations. According to the respondents, to

meet energy demands, close to the study time, the Hawassa Industrial Park was served by a 19-MW mobile substation, until it would eventually be supplied directly with the Park via a dedicated 200-megawatt (MW) substation (in comparison to the power supply for the rest of the city, which totals only 75-MW).

Other important benefits of industrial parks include enhancing employment, diversifying exports and transferring technology and managerial know-how (Delgado et al. 2016; Feser et al. 2008; Ketels 2013; Krugman 1991; Porter 1990; Schmitz and Nadvi 1999). Respondents believed that, currently, industrial parks in Ethiopia opened job opportunities for many citizens and also enhanced exports growth.

Regarding transfer of technology and managerial know-how, most of the employees working in Hawassa and Bole Lemi I IPs got training consisting of a one-week soft training in work ethics and discipline as well as a one-month skills training in the factories before they started work. Respondents stated that many Ethiopians worked in these IPs in positions from General Manager to lower level management. For example, before the construction of Hawassa IP commenced, JP Textile Ethiopia PLC, a joint venture of Chinese and American investors, selected 25 Ethiopians who graduated from university in Textiles and further trained them in Mandarin (Chinese language) for eight months in Addis Ababa. They then got on-the-job skills training, for six months in Shanghai, in weaving and making textiles and garment. After the training, they took part in the installation of machineries for JP Textiles in Hawassa IP and, at the time of the study, they were playing instrumental roles in training other Ethiopians, which JP Textiles was recruiting for its new garment factory.

Almost 85% of the employee respondents indicated that they were getting knowledge transfer and managerial know-how from the IPs. Most of them admitted that they were working not because of the salary but to get some skill that would compensate them in the future. On the other hand, examination of survey responses revealed that there was almost no backward and forward linkage between those manufacturing companies

working in industrial parks and domestic companies and suppliers. For example, the respondents indicated that all foreign manufacturing companies working in Hawassa IPs imported almost 100% of their inputs from abroad. They had no connection with domestic suppliers and companies.

This study also attempted to investigate whether the IPs considered in this study affected the local environment in terms of pollution. Respondents from the Ethiopian Industrial Parks Development Corporation (IPDC) and Ethiopian Investment Commission Industrial Parks Services Coordinating Directorate (EIC/IPSCD) said there was an intention to make all the future industries of the country climate-friendly and non-environment polluting. As an example, they mentioned the high capacity 'zero liquid discharge plant' installed in Hawassa IPs, which recycled and used 90% of the industrial water. Recycling 90% of industrial water would save so much amount of ground water from being pumped out every day. Currently, all the IPs had treatment plants and zero liquid discharge, and IP investors were committed to the government in following the environment protection protocol of the country. Although findings in this study did not indicate negative impact of IPs on the environment, similar studies indicated that many industrial parks operated in an unsustainable way due to the social and environmental problems caused by poor management (Kendrick 1977).

Respondents consisting of industrial park managers or coordinators asserted that industrial parks in Ethiopia were attracting many investments, increased employment and improved the economic situation of the country. However, a major challenge that slowed down efficient manufacturing, transactions and exports was the poor integration with the main government institutions delivering vital services.

Currently, the government is giving a service to industrial parks investors through One-Stop-Shopping (OSS). This service includes issuance of investment permits, work permits, business licenses, commercial registration certificates, registration of trade or firm name, technology transfer agreements, notarizing memoranda and articles of association,

issuance of customs duty exemptions, issuance of tax identification number (TIN), customs clearance in industrial parks, and banking services. According to respondents from among managers/coordinators of the IP companies', industrial parks in Ethiopia were attracting many investments, increased employment and improved the economic situation of the country. However, still there were many challenges. Among these challenges, the one that slowed down efficient manufacturing, transactions and exports was the poor integration of the main government institutions that deliver vital services. At the same time, miscommunications among the state banks were slowing down the services since the Commercial Bank of Ethiopia (CBE) at the OSS, similar to any bank in the country, had limited working hours and, thus, created challenges on their business transactions. Besides, the survey results revealed severe water shortage problem, specifically in Hawasa IP, affecting their day-to-day manufacturing process and seriously limiting the manufacturing hygiene system.

The respondents also indicated that logistics problems and trade facilitation bottlenecks were creating problems on their businesses. For example, OSS was not working fully on those industrial parks which were operational. According to the respondents, the reason why the OSS was not fully operational in some industrial parks was that the main government institutions such as the Ministry of Trade and Industry had no office in these parks and, therefore, it was not possible to get some services from these offices which, in turn, delayed their shipment.

Moreover, as per these respondents, the government did not provide quick financial support that had been promised; whereas, respondents on the government side claimed that it provided financial support for all projects through special banking lending programs. Even then, investors were not satisfied with these programs as they involved time-consuming and complicated bureaucratic procedures. It could, thus, be concluded that the financial support was generally inadequate. Some businesses claimed that, given the high rents and high costs within the IPs, operating inside the parks did not differ significantly from operating outside parks.

Despite the fact that industrial parks were creating huge employment opportunities for many citizens in Ethiopia, issues related to the protection of workers' rights and respective consequences continued to be the concerns of many in Ethiopia.

This study showed that workers in the IPs were unhappy because of small wages. For example, many of the respondents from Hawassa IPs resented that the 1,002 birr (around USD 43 at the prevailing exchange rate), the average monthly wage in 18 textiles factories in the Park, was far too small that it could not cover even the costs for meals, house rent and transportation. For example, it was indicated that the cheapest rent for a small house ranged between ETB 650–800 (between USD 28 and 35) per month; and that was only available in 'Chefe' and 'Monopol' areas, which are located at the outskirt of Hawassa city. As these places are three to five kilometers away from Hawassa IP, the taxi charge was five birr for one way."

The interview with employees working in Hawassa and Bole Lemi IPs, revealed that there were employees who were getting monthly salary below ETB 650 (USD23); one can imagine how life is difficult for those workers. Besides, the study participants also mentioned of rumors that women were sexually abused by their immediate boss.

Article 25 of the Industrial Parks Proclamation No. 886/2015 states that "*the arrangement by which the Ministry of Labor and Social Affairs, Employers of Industrial Park Developer, Industrial Park Operator or Industrial Park Enterprise and employees' representatives address labor issues through constructive consultations*" (FDRE 2015). However, there was no such arrangement on the ground that could better handle labour issues.

On the other hand, employees responded that there were a number of instances when workers reported verbal and sexual harassment by foreign supervisors. Nonetheless, corrective measures were not taken either by the management of the companies or by relevant government bodies. As a result of these hurdles and the problems of low wage, investors reported that they experienced high employees' turnover. The respondents also

indicated that safety and health measures taken by the investors were below the standard. For example, the protection equipment to cover the nose and mouth was not up to the standard. And thus, when used, it was not comfortable and most of the workers could not stand humidity. Respondents revealed that 75% of the employees were not happy with their working conditions and this resulted in high labour turnover in the IPs.

Respondents from among IPDC and EIC industrial officials revealed that the Ethiopian government offered very generous incentives to IP developers and investors by way of tax exemption, very low land lease price, and duty free privilege to import machineries. These generous privileges were criticized by many because it was believed to erode the country's tax base and increase the country's national debit, as most of the IPs were constructed with loan money.

According to data obtained from IPDC and EIC industrial officials and secondary sources, despite government efforts to build IPs at a fast rate, there were concerns on whether enough demand was being created for these parks. Respondents from among experts, investment policy makers and consultants stated that the government of Ethiopia was building IPs in every region just for political purposes without seriously considering the feasibility. Thus, this action of the government would cost the country dearly if the IPs would not attract enough demand and have limited cluster effects. Almost all respondents indicated concerns regarding challenges of management of the parks, even if enough demand for the parks was created. Majority of IPDC and EIC industrial experts believed that they did not have enough organizational structure, enough skilled human power and resources to manage them. They indicated that unless these institutional capacity problems were solved as early as possible, it would not be possible to retain those investors who were already operational in industrial parks in Ethiopia.

Another concern by respondents from the Customs Office was that some manufacturers avoided to put on the label the name of the country of origin, as "Made in Ethiopia", despite the requirement that products made

in a country should be labelled in the name of the country of origin. The respondents thought that the products would be tagged with a different country after they reached their destination and distributed for sale.

IP development expert respondents expressed some concerns, especially on location selection and operation and maintenance, in IPs development in Ethiopia. The location of some IPs, such as Bole Lemi I and Adama, is too close to residence areas, resulting in a continuous struggle with the community behind the park because those IPs' locations completely cut off the community's access to the highways.

To finance IP development, the Ethiopian government borrowed huge amounts of money from international financiers, such as the European Investment Bank and World Bank. The main concern here was how the Ethiopia government would pay back this money. The concern emanated from reports that indicated that the parks were not getting enough domestic and foreign investors who were interested in investing in the parks. According to the respondents, the only IPs that were fully operational were Bole Lemi I and Hawassa IPs. For example, Hawassa IP was hosting 15 global textile and apparel manufacturing companies from the USA, India, China and Sri Lanka.

This was also a concern of former Prime Minister Hailemariam Desalegn who said, during the inauguration of an IP in Meqelle, "We have set the nest, so the birds now have a place to land." However, findings of this study suggested that for the 'birds to land' in those IPs, the selection of location of industrial clusters should have been based on influential factors, such as cost reduction, profitability growth, and performance improvement, instead of simply choosing regions that are in dire economic states. Also, strategic alliances, competition, and collaboration must have been based on resource-sharing and integration.

4. Conclusion and Recommendation

The primary objective of the research was to investigate the relationship between industrial park development and its economic contribution in the context of Ethiopia. This study provided a discussion to examine issues

relating to cluster phenomena, such as economic contribution of industrial parks, industrial parks and environmental concerns, investor challenges, labor rights, backward and forward 'leakage' effects of IPs and technology transfer. Future researches are expected to study parks "cluster effects" and the parks neutral or negative side-effects on investment climate outside the park.

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Annexes

Annex 1: Summary of government officials and experts, investment policy makers and consultant respondents' response for the structured questionnaires provided for them

Summary of responses of government officials and experts, investment policy makers and consultants' respondents to the question "Do you think there is fall in trap due to thirst for development in Ethiopia as the result of, low/zero price of land, absence of restrictions to land use certification; allowing foreign investors to use the free land for collateral?		
Summary of responses	Count	Per cent
Under the current circumstance we do not see such kinds of fall in trap in relation to industrial park development	18	56.3%
There are issues related to low/zero price of land.	10	31.3%
We do not know	4	12.5%
Summary of responses of government officials and experts, investment policy makers and consultants respondents to the question "Do you think there is environmental problem or potential environmental problem as the result of industrial park development in Ethiopia?		
Summary of responses	Count	Per cent
The development of the parks is strictly regulated to have zero liquidity discharge.	26	81.3 %
We have no detail knowledge on this issue	6	18.7 %
Summary of responses of government officials and experts, investment policy makers and consultant respondents to the question "Do you think there will be bankruptcy as the result of heavy debt to develop industrial parks in Ethiopia? "		
Summary of responses	Count	Per cent
There will be a possibility unless these constructed industrial parks are getting the required investors demand. In the meantime if the government could not administer effectively there will the possibility to lose those invertors/ companies which are operational currently as	19	59.4%

the result the government could be in bankruptcy due to heavy debt.		
These industrial parks are getting enough investors demand so it is less likely the government could be in bankruptcy as the result of heavy debt.	10	31.3%
We do not know	3	9.4%
Summary of responses of government officials and experts, investment policy makers and consultants respondents to the question "Do you think there is a distortion in foreign exchange as the result of Foreign Park developer operator and enterprises because of borrowing funds from domestic financial institutions and change the money into foreign currency and send it out, or borrowing funds from international financier and pay back in foreign exchange and harm the position of the country foreign currency reserve? "		
Summary of responses	Count	Per cent
No evidence found until now.	30	93.4 %
We do not know	2	6.3 %
Summary of responses of respondents to the question "Do you think there is clear and unambiguous legal framework to regulate industrial parks in Ethiopia between federal and regional governments? Clear boundary between federal and regional governments? "		
Summary of responses	Count	Per cent
Yes there are	30	90.4%
No answer	2	6.3 %
Summary of responses of government officials and experts, investment policy makers and consultant respondents to the question "Do you think there is strong linkage between the parks and domestic economy in Ethiopia? Do you think the domestic economy is realized from these parks in terms of benefits improvement in domestic productive capabilities through technology transfer, modern management skill and spillover effect to the domestic firms?? "		
Summary of responses	Count	Per cent
Between the domestic companies/ suppliers we can say there is no connection at all. But Ethiopian employees working in industrial parks are getting trainings and knowledge transfer through induction and on job trainings. There are Ethiopian employees who are working as supervisors and at management level.	29	91%
No answer	3	9.9%

Summary of responses of government officials and experts, investment policy makers and consultant respondents to the question "Do you think there are clear policies and effective institutional arrangement in Ethiopia that can facilitate the linkage between the parks and domestic economy? "		
Summary of responses	Count	Per cent
Not at all.	32	100%
Summary of responses of government officials and experts, investment policy makers and consultant respondents to the question "Do you think the Ethiopian Investment Commission has both capacity and organizational arrangement to regulate and implementing industrial parks development in Ethiopia? Number of qualified human resources, motivation of staffs, and organizational structure etc? "		
Summary of responses	Count	Per cent
Not enough	28	87.5 %
It has	4	12.5 %
Summary of responses of respondents to the question "Do you agree on the Ethiopian Industrial Park Development Corporation (IPDC) roles working as developer and operator? Do you think IPDC should work by on its business model which is "market-oriented" like any other private developer or operator?"		
Summary of responses	Count	Per cent
No: must work as developer only. The operator part must be given for Ethiopian Investment Commission or other government body.	18	56.3%
Yes : b/c it will not create any problem	13	40.6%
I have no idea	1	3.1%
Summary of responses of government officials and experts, investment policy makers and consultant respondents to the question "Do you think the roles IPDC as a regulator while at the same time a developer and/or operator which may induce inefficiency as well as conflict of interest that might also be a risk (the risk can originate from land development, land valuation and land right transfer) of 'rent seeking' behavior? "		
Summary of responses	Count	Per cent
Yes	18	56.3%
No	13	40.6%
I have no any idea	1	3.1%
Summary of responses of respondents to the question "Do you think the infrastructures (water, power, waste water treatment, solid waste disposal, custom, telecommunication, and internet) accessibility and quality of industry Park effective enough to facilitate firms' competitiveness?"		

Summary of responses	Count	Per cent
No at all	28	87.5%
In some extent – it is enough	4	12.%
Summary of responses of respondents to the question "Do think works right at the industrial parks is protected? "		
Summary of responses	Count	Per cent
No at all: many issues are there.	32	100%

Annex 2: Summary of interview questions provided for industrial parks companies 'managers/or owners background

Interview questions
Was is it easy to establish your company at the industrial parks?
What was the difficult part/steps during your company establishment?
Did you get enough support from the concerned government offices during establishment?
Do you have interest and commitment to create linkages with other tenants within the economic zones? Why? If not; why not?
Do you face any challenge to create linkages with other tenants within the economic zones? If yes: what are these challenges?
Do you believe you have linkages with domestic companies? If yes: in what ways? If no; why not?
Did you face any challenge to create linkages with domestic companies? If yes: what are these challenges?
Do you believe you are trying to transfer technology and knowledge and technologies to your Ethiopian employees and domestic firms? If yes: how? If no: why not?
Are you producing with full capacity? If no; why not?
Does your export increase time to time as per your plan? If not why not?
What are the challenges you are facing now in relation to your investment in industrial park?
Do you get enough support for the relevant Ethiopian government office to solve your challenges?
Do you administer your employees as per the Ethiopian labour law?
What are your challenges related to employees administration?
Do you have any special treatment for women employees?

What does your company safety rules and regulations look like? Can you say it is as per the international standards?
Does your working system have its own mechanism to distoxic your company's by products?
Do you allocate budget for environment protection?
Can you list down some of the factors for sustainable development within the specific SEZs and industrial parks?

Annex 3: Summary of interview provided for industrial parks employees'

Interview questions
Did you get training before you started you job?
Do you like your working condition?
Do you have labor union?
What is your average salary?
Are you happy for the benefit you are getting from the company?
Do you believe your labor rights are protected by your company and the government?
Do you get quick response from your company's management for your requests and complaints?
Does your company have any special treatment for woman employees?
Are you happy by your company's safety rule, regulation and practices? Can you say it is as per the international standards?