

Addis Ababa University
College of Business and Economics



**Comparative Financial Performance Assessment of
Textile Manufacturing Companies Operating Inside and
Outside Industrial Parks: The Case of Addis Ababa and
Its Surrounding**

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College of Business and Economics
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**Comparative Financial Performance Assessment of Textile
Manufacturing Companies Operating Inside and Outside
Industrial Parks: The Case of Addis Ababa and Its Surrounding**

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A thesis submitted to the Department of business administration of Addis Ababa University in partial fulfillment of the requirements for the Degree of Masters of business administration in Finance (MBA)

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Approval Sheet

This is to certify that the thesis prepared by Rolina Negussie entitled “**Comparative Financial Performance Assessment Textile Manufacturing Companies Operating Inside and Outside Industrial Parks: The Case of Addis Ababa and Its Surrounding**”, which is submitted in partial fulfillment of the requirements for the Degree of Masters in business administration complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

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Abstract

The textile industry has a key role when it comes to enhancing the economic growth of a country. Because of this, the Ethiopian government chose to focus on this sector as a key driver including making it a priority sector to reside in most industrial parks. The concept of industrial parks is relatively a new phenomenon in the country and as such there is limited research conducted regarding industrial parks and the textile industry. However, there are several researches conducted on the textile industry alone with a specific focus on issues related to management and financial performance. Regardless of these studies, not enough research is conducted to reveal the difference in financial performance, mainly profitability and efficiency between textile manufacturing companies operating inside and outside industrial parks. The main objective of this study is to identify the difference in financial performance between textile manufacturing companies operating inside industrial parks (resident companies) and those operating outside industrial parks (Nonresident companies) and prove the statistical significance of this difference. The research employed net profit ratio, ROI, total asset turnover ratio, fixed asset turnover ratio, working capital turnover ratio and inventory to net working capital ratio in order to identify the profitability and efficiency of both resident and nonresident companies and this in turn is to assess their financial performance. Then the research used the Mann Whitney U test to compare the financial ratio results from both groups and analyze if the stated difference is statistically significant or not. Major findings of the study is that there is a difference between financial performance of textile manufacturing companies operating inside and outside industrial parks. On average, resident companies have better profitability and efficiency ratios than nonresident companies. And this difference is statistically significant at least for the majority of financial performance indicators. One of the major suggestions from this study is for the government to continue to encourage and incentivize manufacturers to use industrial parks as their benefit clearly contributes to the positive financial performance of their tenants.

Key words: Benefits of industrial parks, financial performance, Profitability, efficiency, Resident companies, Nonresident companies

Acronyms

ADLI:	Agricultural Development-Led Industrialization
ETIDI:	Ethiopian Textile Industry Development Institute
FDRE:	Federal Democratic Republic of Ethiopia
GTP:	Growth and Transformational Plan
IDS:	Industrial Development Strategy
IPDC:	Industrial Parks Development Corporation
ISI:	Import Substitution Industrialization policy
ITC:	International Trade Center
LTO;	Large Taxpayers office
MoR:	Ministry of Revenue
MTO:	Middle income Taxpayers Office
ROI:	Return on Investment
SOE:	state owned enterprises
UNIDO:	United Nations Industrial Development Organization

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Chapter one: Introduction

1.1. Background of the Study

A recent study conducted on Industrial policy and late industrialization in Ethiopia indicates that Ethiopia has been able to sustain a fast growing economy for almost the past 15 years. And the government focused on manufacturing sector, because the sector has greater scope, has better link with other sectors and has powerful effect on employment. However, the country has failed to achieve its plan of making the manufacturing sector the prime driver of sustained economic growth and structural transformation since 2010 (Oqubay, 2018).

Ethiopia's manufacturing sector plays a fringe role in employment creation, exports, and output, and does not encourage domestic linkages as much as it is anticipated to. It is dominated by small firms and resource-based industries, its value addition is very low and it is not high-tech. It also has weak inter-sectoral and intra-sectoral linkages. The sector's export orientation has been low and stagnant (Oqubay, 2018).

Despite a disappointing result, the government has been trying to promote the manufacturing sector as a means to pivot the country's economy into the movement of industrialization. One of the key methods for industrialization is building industrial parks as they can maximize resource integration. Especially for limited production factors by attracting labor and capital-intensive domestic and foreign investment in manufacturing and service industries (Zhang et al., 2018).

When it comes to ownership types, industrial parks can be private, public or joint venture between the private and public sector. Currently in Ethiopia, there are both private and public industrial parks. Key principles of having industrial parks in Ethiopia are; enhancing economy of scale and efficiency through the development of specialized industrial parks, exported oriented, skill development and competitiveness, ensuring forward and backward linkages and finally environmental sustainability (Weldeselassie, 2017).

More sophisticated industrial parks offer a wide range of common facilities and support services, such as consulting, financial services, training, technical guidance, information services, joint research facilities and business support services to satisfy the corporate and technological needs of tenants. By providing adequate infrastructure and a legal and

institutional framework, industrial parks reduce costs and risks of set up and operation for most manufacturing systems (Baku, 2012).

The textile industry is one of the most well-known and the earliest large scale bustle that led the industrialization process centuries ago. It is also well spread across the globe in both developing and developed economies because of its simplistic nature and requires low skilled labor. Which is why most countries used this industry as a means to take their economic growths to the next level. It has also been used as an instrument to realize the export led growth by East Asian economies since the 1950 s up to mid-1980s. After these countries reached the growth level that allowed them to shift to high tech and capital intensive manufacturing processes, the popularity of the textile industry in these countries started to decline and moved to South Asian developing countries where it was more appreciated and used as a key driver of their economic growth (TAIDI, 2010). And now this industry has found its way into the hearts of African economic growth drivers as it is time for the South Asian countries to pass down the torch.

Therefore, the textile industry is now one of the main focus areas of the Ethiopian government as a strategic sector. Which is why it is necessary to give more emphasis to this industry in order to determine factors that might affect its performance and even identify good practices and encourage their continuation.

1.2. Statement of the Problem

Ethiopia is using Industrial Park Development as a policy instrument for its structural transformation goal. As a result, there are 22 industrial parks in Ethiopia out of which 9 of them are operational. Ethiopia's first large scale private industrial park (Eastern Industrial Zone in Dukem) is 9 years old while the first public industrial park (Bole Lemi) is 5 years old. These numbers have now increased to four private and five public operational industrial parks (CEPHEUS, 2019).

Industrial parks are relatively new phenomenon in Ethiopia and as such, there is little experience of adequate management of industrial parks. IPDC (Industrial Parks Development Corporation) is also a young entity and its industrial park operation and management skill is infant (Weldeselassie, 2017).

In addition, industrial park operators (managers) have their own short comings. For example; public industrial parks are developed and operated by the IPDC and at the same time the IPDC serves as a regulatory body of industrial parks based on the proclamation. This creates conflict of interest as well as inefficiency of operating industrial parks. It might also lead to rent seeking behavior adding to the pile of inefficiency. When it comes to private developers, they have a slightly higher difficulty of acquiring funding or loan compared to the public ones and even if they secure loan they might not be able to repay and their risk of defaulting is higher. As a result they might set higher prices to sub-lease the developed land (Zhang, 2018). These short comings can affect the financial performance of resident companies.

The reason why the government of Ethiopia preferred to focus on textile industry as a key driver of the manufacturing sector is because it is easier to set up and start production and it provides employment opportunity at a higher proportion. Various studies have been conducted to understand the textile industry and its performance. However, these studies do not shed some light when it comes to revealing how well or bad textile companies residing in industrial parks are doing against their counterpart which are textile companies operating on their own outside industrial parks. This is specifically in terms of profitability and efficiency.

Benefits brought forth by the development of industrial parks such as; set up cost reduction, one stop shop services, tax and other incentives, support of increase in export value, access to market and related logistics makes it appear as the obvious choice for anyone planning on joining the manufacturing field.

However, research conducted in these areas previously either focus separately on industrial parks and benefits brought forth by them or financial performance and management effects of textile manufacturing companies. Previously conducted studies do not compare the financial performance difference between resident and nonresident companies, especially with a focus on the textile sector. This gap in research also exists when it comes to proving the statistical significance of the difference in financial performance (profitability and efficiency) between resident and nonresident textile manufacturing companies.

As a result, this research will identify the difference in profitability and efficiency between resident and nonresident companies and will seek to prove the statistical significance of this difference.

1.3. Objectives of Research

General Objective

To identify if there is a statistically significant difference between textile manufacturing companies operating inside industrial parks (Resident companies) and those operating outside industrial parks (Nonresident Companies) based on their financial performance (profitability and efficiency).

Specific Objectives

1. To identify profitability of textile manufacturing companies that are both operating inside and outside industrial parks
2. To identify Efficiency of textile manufacturing companies that are both operating inside and outside industrial parks
3. To identify the statistical significance of difference in profitability and efficiency between textile manufacturing companies operating inside industrial parks (Resident companies) and those operating outside industrial parks (Nonresident companies)
4. Based on results obtained, to indicate which group of textile manufacturing companies have better profitability and efficiency than the other.

1.4. Research Questions

The study seeks to address the following questions;

1. How profitable are textile manufacturing companies that are both operating inside and outside industrial parks?
2. How efficient are textile manufacturing companies that are both operating inside and outside industrial parks?
3. What are the differences in profitability and efficiency between textile manufacturing companies operating inside industrial parks and those operating outside industrial parks?
4. Is this difference in profitability and efficiency statistically significant?
5. Which group of textile manufacturing companies have better profitability and efficiency?

1.5. Significance of the study

The study was intended to shed some light on financial performance variation between resident and non-resident textile manufacturing companies in industrial parks (textile manufacturing companies operating inside and outside industrial parks). It will not only try to show the difference but also the statistical significance of this difference. In addition, it will indicate whether it is financially better to operate inside industrial parks or not. It will be useful for Industrial Park Development Corporation (IPDC) as it helps review its strategy in regards to development and operation of industrial parks and the impact it might have on competitor counterparts. The outcome of this research will help the government in general and IPDC, EIC and Investment board in specific, focus policies and strategies towards the most effective and efficient form of benefits offered by industrial parks. It will also offer textile manufacturing players some insight regarding where to operate. Last but not least, this research will contribute to the literature of industrial parks and textile industry in Ethiopia and will serve as a reference for further studies and even policy development.

1.6. Scope of the study

As this research will be conducted to analyze the difference between textile manufacturing companies operating inside and outside industrial park based on their profitability and efficiency, the scope of this study will be limited to textile manufacturing companies in and around Addis Ababa, both resident and non-resident enterprises. There are five public and four private operational industrial parks currently, however, this study will focus on only two of those namely; Bole Lemi and Eastern Industrial zone. This is because, they have been operational for a while and most of their resident companies report their taxes to the middle income tax payers' office (MTO). As for non-resident enterprises it will focus on middle income tax payers from the textile sector in and around Addis Ababa. Therefore, this selection was done based on the fact that most textile companies operating inside industrial parks near Addis Ababa report to the Middle income tax payers' office which is where the data is obtained from. As a result the other group to be compared with these resident companies must also be in the same tax bracket in order to eliminate error of conducting this study.

1.7. Limitation of the study

A simple limitation of this study is absence of relevant study material on the subject for the purpose of conducting the literature review. The researcher tried to fill this gap by referring to other studies that are related to this research in one way or another. The more complicated limitation of this study is lack of more structured and reliable access to data from government offices such as Ministry of Revenue. Despite the fact that the staff members of MoR were willing to cooperate, because of lack of system to access compiled and consistent data, it was extremely hard to obtain the data. In addition the financial reporting format of MoR does not include every financial information about the reporting company, which limited the implementation of additional financial analysis which would have made the study stronger.

1.8. Organization of the study

Chapter one of the study contains introduction, giving a background of the study while putting the topic of study in perspective. It gives the statement of the problem and the research questions. This chapter also outlines the objectives, scope, and Organization of the study.

Chapter two provides evidence for the existence of research gap in the selected topic. It provides other researchers' work in a way that shows what currently exists and gives more support as to why this research must be conducted.

Chapter three contains the research methodology along with research design, population, sample and data needed for the research.

Chapter four contains results and analysis of the research

Chapter five contains conclusion and recommendation

Chapter Two: Literature Review

2.1. Theoretical Review

2.1.1. Financial Performance

Financial performance is a subjective measure of how well a firm utilizes its resources to generate revenue. It can also be used to measure the overall financial health of a company. The other purpose it serves is to compare similar companies in the same industry in order to find out how well a company is doing against its competitors. These results are reflected in the firm's profitability, liquidity or leverage. (Kenton, 2020).

There are several ways to measure financial performance of a company. The most commonly used ones are financial ratios such as; profitability ratios, efficiency ratios and the like which will allow us to determine how profitable or efficient a company is. These ratios utilize information obtained from the income statement and balance sheet of a company. They can be used to compare a company with its competitors in the same industry or compare its financial progress from previous years (Gerber, 2018).

Financial performance analysis undertakes full diagnosis of a business's profitability and financial soundness by analyzing and interpreting financial statements. Financial analysts usually assess a business's overall performance including but not limited to; productivity performance, profitability performance, working capital performance, fixed asset performance, fund flow performance and social performance (Verma, 2019). Therefore, we can use financial performance analysis to capture the overall performance status of textile manufacturing companies operating inside industrial parks and those residing outside industrial parks.

Profitability ratio is a metrics made up of other ratio calculations which will allow to determine a business's ability to generate income against expenses and other related costs during a particular period. In other words, it will evaluate the profitability of a business which is a good indicator of performance (Kenton, 2019). There are almost eight profitability ratios but we will focus on only two profitability ratios selected based on their suitability for this research and they are the following; Net profit ratio and Return on Investment (ROI). The general objective of these ratios are to determine the efficiency of

the business overall and the operational efficiency in particular (Toppr, WallStreetMojo, 2019).

The net profit ratio is the ratio of net profits to net sales. It discloses the remaining profit after all costs of production, administration, and financing have been deducted from sales, and income taxes are accounted for. As such, it is one of the best measures of the overall results of a firm (Bragg, 2018).

According to accounting capital, net profit ratio establishes a relationship between net profit earned and net revenue generated from operations also known as net sales. Net profit ratio also helps determine the overall efficiency of the business' operations, furthermore, it is an indicator of how well a company's activities are performing.

Gregory Hamel puts net profit ratio as a means to measure the amount of each dollar of sales that a company has left over after it pays all of its expenses (Hamel, 2017).

According to James Chen, ROI is a performance measure used to evaluate the efficiency of an investment. In other words, it is an indicator of return an investor can enjoy from his/her investment in a certain company. ROI is a popular metric because of its versatility and simplicity. It can also be interpreted to explain wide range of application (Chen, 2018).

ROI is the most commonly used profitability ratio. It can be used in several different ways to evaluate the profitability of a business. It can be used to measure the performance of a company's pricing policy, inventory investment, capital equipment investment and cost reduction policies. Calculating ROI will help identify what is working and what is not in a given company and help to make decisions on how to execute the business. It can also be used by an investor to evaluate the soundness of his/her investment portfolio.

Neil Kokemuller states that companies monitor ROI to compare it against projections and goals, to monitor profitability trends and to compare the results with those of competitors (Kokemuller, 2019).

According to an article published on small business insights, ROI is very essential for those businesses aiming to take to the next level. And successful business owners utilize ROI to keep their business on the growth path.

Efficiency ratios, as the name implies, measure how efficiently a company uses its assets to generate revenues while managing those assets. Some of the ratios are; total asset turnover ratio, fixed asset turnover ratio, accounts payable ratio, accounts receivables turnover ratio and working capital ratio (Kenton, 2018).

In addition, Markus Palenberg mentions in his article about Methods to evaluate efficiency, that efficiency is the means of transformation of inputs into results (Palenberg, 2011).

Measures of efficiency are used to judge and document the amount of prevention program activity that takes place in relation to stated goals, objectives, and strategies. As such, this measure represents an assessment of energy, regardless of impact (Girard, 2012).

The asset turnover ratio is an efficiency ratio that measures a company's ability to generate sales from its assets by comparing net sales with average total assets. This basically means that, this ratio shows how efficiently a company can use its resources to generate revenue. It is able to do that because it compares the sales of a company to its asset base (Bragg, 2019).

In other words, it measures how much goods and services are sold for every dollar of used assets during the analyzed period. It is better to compare asset turnover ratio of a firm to industry averages, or to the firm's values of this ratio over past periods. Lower ratios usually indicate too heavy investments in assets or notable decline in sales (Girard, 2012).

Adam Hayes states that the higher the asset turnover ratio, the more efficient a company is at generating revenue from its assets. Conversely, if a company has a low asset turnover ratio, it indicates it is not efficiently using its assets to generate sales (Hayes, 2018).

The fixed asset turnover ratio calculates how efficiently a company is producing sales with its machines and equipment and other fixed assets. A higher fixed asset turnover ratio is indicative of greater efficiency in managing fixed asset investments. This ratio is more relevant in evaluating manufacturing companies as they have more investment in fixed assets compared with other companies that put most of their investment in other parts of their operation, for example; IT companies. When the business is underperforming in sales and has a relatively high investment in fixed asset, the ratio may be low. However, not all low ratios are bad, it might also mean that the company just made some new big purchases of fixed assets and it may have a negative connotation (Kenton, 2018).

Working capital turnover is a ratio that measures how efficiently a company is utilizing its working capital to support a given level of sales. A high ratio indicates the company's ability to utilize its short term assets and liabilities efficiently for supporting sales, while, low ratio shows the business is investing too much in accounts receivables and inventory and might lead to excessive amount of bad debt or obsolete inventory (Kenton, 2019).

A working capital turnover that is too high can be misleading. On the surface, it appears that the company is operating at a very high efficiency, but in reality, the working capital level might be dangerously low. Very low working capital can possibly cause the company to run out of money to fund the business (Keythman, 2017).

Inventory to net working capital ratio can be used to show what portion of a company's inventories is financed from its available cash. The lower the ratio, the higher the liquidity of the company as its working capital is not held up in inventories. Therefore, it is an indicator of the company's efficiency in managing its inventories and their effect on its working capital (Wilkinson, 2014).

2.1.2. Test of Significance

According to Akhilesh Ganti's article on Central Limit Theorem (CLT) published on Investopedia, as the sample size becomes larger, the distribution of the sample means approximates a normal distribution also known as a "bell curve" (Ganti, 2019). The commonly accepted general rule is; sample sizes equal to or greater than 30 are accepted to be sufficient for the Central Limit Theorem to grip and leading to the conclusion that the distribution of the sample means to be normal distribution.

When comparing two independent samples that don't have normal distributions and the samples are small, then the best fit to proceed with the analysis will be a nonparametric test. A well-known nonparametric test to compare outcomes between two independent groups is the Mann Whitney U test which is also known as the Wilcoxon Rank Sum Test (Milenovic, 2010). This test will have two hypotheses which will be put as follows;

H_0 : The two populations are the same

H_1 : The two populations are different

2.2. Empirical Review

Dr. Meenakshi Anand used competitive financial ratio analysis such as; profitability, efficiency, liquidity and solvency ratios in order to determine the financial soundness of selected textile companies in India. Dr. Anand simply used these ratios to compare the profitability of selected companies, how efficiently they use their assets and resources, their liquidity status, their ability to repay their debts and overall financial stability and soundness of the companies. He analyzed three years' worth of financial data to compare the companies. He was able to identify which of the textile companies had higher profitability rate and efficiency rate and based on that he was able to make some recommendation (Anand, 2014).

Ombir Singh attempted to analyze and compare the financial performance of public and private sector firms in the Indian capital goods industry for the period from 2013 to 2015. He employed ratio analysis to conduct his study. The result of the ratio analysis indicated that the public sector companies were less efficient as compared with their private counter parts. As far as profitability is concerned, the public sector turned out to be more profitable than the private sector but it was statistically insignificant (Singh, 2016).

According to a comparative research conducted by Andrea Harris; higher net profit ratio and ROI indicated higher profitability for the manufacturing companies located near urban centers as opposed to those located far from urban areas indicating the fact that location has a direct impact on profitability. On the other hand efficiency ratios (activity ratios) gave varying result depending on the ratio. Total asset and fixed asset turnover ratios were higher for those closer indicating higher efficiency, while those located further away have lower ratio indicating less efficiency in using their fixed and total assets. In the mean time inventory ratio was lower for those located close to the urban area implying lower amount of working capital trapped in unsold inventories while it was high for those located further away (Harris, 2017).

Dovi Septiari conducted a study on "The Financial Performance Comparison of Islamic Bank in Indonesia with Islamic Bank in UK". In this study, they first conducted financial ratio analysis in order to obtain some values to be used in a further study called the Mann Whitney U Test in addition to analyzing the financial soundness of these banks. Then they put the obtained ratios in the Mann Whitney U test calculation to test for statistical significance. The result of the Mann Whitney U test revealed that there is a difference in

terms of profitability in Islamic banks in Indonesia against those in UK. However, there is no difference in terms of capital structure (Septiari, 2017).

2.3. Definition of an Industrial Park and the Textile Industry

2.3.1. Industrial Parks

The Industrial Park Proclamation NO. 886/2015 defines industrial park as “an area with distinct boundary designated by the appropriate organ to develop comprehensive, integrated, multiple or selected functions of industries, based on a planned fulfillment of infrastructure and various services such as road, electric power and water, one stop shop. It also includes special incentive schemes with a broad view to achieving planned and systematic, development of industries, mitigation of impact of pollution on the environment and human being and development of urban centers. It comprises special economic zones, technology parks, export processing zones, agro-processing zone, free trade zone and the like designated by the investment board.” (FDRE, 2015).

The United Nations Industrial Development Organization (UNIDO) gave another definition and it is as follows; “An industrial park can be defined as a tract of land developed and subdivided into plots according to a comprehensive plan with or without built-up (advance) factories, sometimes with common facilities and sometimes without them, for the use of a group of industrialist” (UNIDO, 1997, p.10).

Even if they are usually used interchangeably, there is a difference between Industrial Park and Industrial Estate. Industrial Estate is merely an area set aside for the purpose of accommodating industrial facilities without the plain determination of facilitating or promoting the provision of common infrastructure and services while Industrial parks provide the necessary infrastructure and services along with several other incentives in order to allow investors to just plug and play in the already set up space (UNIDO, 1997).

Due to various characteristics of industrial parks their classification may vary. For example, according to UNIDO’s conference report of 2012 on the topic “Europe and Central Asia Regional Conference on Industrial Parks”, the following classification of Industrial Parks apply. Depending on the specialization of the park it may be a science/technology park, research park, export processing zone or free trade zone. As for ownership, it may be public, private or public-private partnership. And lastly depending

on the land used, it may be 'brown' if the park is established on already used facilities and 'green' if it established in a new area (UNIDO, 2012).

One more category of industrial parks is an Eco-industrial Park which is a park that strives for a high environmental, economic, and social benefits while supporting businesses by accommodating environmentally friendly technologies and companies targeting zero waste. In addition, they promote sustainable management by integrating manufacturing with related services and reducing wasteful usage of resources and unwanted traffic (Lowe, 1998).

It is well known that the Great Britain is a leader in industrialization movement and it may not come as a surprise when it is stated that in 1896 the first industrial zone named Trafford Park was established in the Great Britain by a company called Shipcanal and Docks near Manchester. The number of industrial parks grew to 46 in 1960. Germany, following the footsteps of the Great Britain established its first Industrial Park in 1963 named Euro-Industriepark Munchen and the number increased to 64 in 1992 (Vidova, 2010). However, the development of industrial parks is relatively a recent phenomenon in Africa especially Sub-Saharan Africa (Oqubaye, 2015).

In the early 1970's industrial parks were operated by the government and driven by public sector development. They were very simple compared to modern day industrial parks and they basically supplied working space and storage. However, almost after two decades the services provided by industrial parks kept increasing and became holistic. In addition in the 1990's it moved from public (government owned) to planned coordination with the private sector leading to improved services, greater product differentiation and non-price competition (UNIDO, 2012).

When we come to our context, the Ethiopian Industrial Parks Development Corporation (IPDC) was established in 2014 with the mandate to develop and operate the parks. However, Ethiopia's first large-scale industrial park, East Industrial Zone, was established nine years ago which is privately owned, while the first public industrial park Bole Lemi was established five years ago. Currently there are 22 industrial parks under numerous phases of establishment but there are only nine operational ones and out of those four are private while five are public industrial parks (CEPHEUS, 2019).

Based on several researches, Industrial Parks are considered to be one of the most vital instrument in driving economic development with high employment and economic income (Bonde-Henriksen, 1982), which is why the Ethiopian government targeted

Industrial Parks as a means to achieve its ambitious development and structural transformation plans (Berhe, 2018).

Under the second phase of the Growth and Transformation Plan (GTP II), the government aims to continue developing physical infrastructure through public investment projects and put Ethiopia among the global manufacturing hub while maintaining a sustainable economic growth rate of 11% (World Bank, 2017). The best possible way to ensure this sustainable growth is through the development of industrial parks as they help utilize resources in an efficient way and make it easier to develop infrastructure in a limited space rather than scattered all over the country.

As of 2016, Ethiopia has been facing a negative trade balance of \$17.3 Billion and this is mainly because Ethiopia's export has been stagnant due to the fact that exported items are primary agricultural products. In addition to this, Ethiopia's manufacturing is not as developed and dominant as it should be, therefore exported items can't really compete in the international market and the development of Industrial Parks will elevate this problem and allow the country to produce and export internationally competitive items both from agro-processing and other manufacturing (Zhang et al., 2018).

Foreign exchange, Ethiopia's headache, is huge means for a country to fulfill its basic import needs while facilitating for the economy's growth and development. Experience taken from china indicates that the country's foreign exchange earnings increased due to the establishment and operation of their industrial parks (Special Economic Zones) and they took the majority share in the FDI that came to the country (Weldesilassie et al., 2017). Since the operation of industrial parks in Ethiopia, it is believed that the country's foreign exchange earnings will increase as it would make investment more attractive by eliminating the hustle of setting up their own manufacturing and other related investment area (Zhang et al., 2018).

The export performance of industrial parks has been increasing and has reached \$72 million in 2017/18 and is expected to reach \$130 million this year. Bole Lemi showed the highest export figures \$32mn (or 44% of total), followed by Hawassa (\$20mn), and Eastern Industrial Zone (\$14mn) in 2017-18.

Nonetheless, Hawassa Industrial Park is the leading exporter this year (\$37mn over nine months, or 36% of total), followed by Bole Lemi (\$29mn; 29%) and Eastern Industrial Zone (\$22mn; 22%) mainly due to the fact that most of the Hawassa Industrial Park tenants are now well established and were able to secure large export orders as soon as they became active (CEPHEUS, 2019).

The key institutional constraints that hinder the development and expansion of large-scale manufacturing industries are capital and those related to land acquisition, customs, logistic services, low capacity and absence of coordinated effort in the development and provision of infrastructure and public services. Among these key constraints, rent – seeking behavior in land provision and problems related to attitudes for the change in the land use pattern especially in rural areas provide the harder hustle for those trying to set up their manufacturing facilities. In addition lack of reliable supply of road, power, telecommunication, water supply; absence of industrial effluents system and poor provision of services in custom, visa and banking are key bottlenecks for the rapid development and expansions of the manufacturing sectors (Yehuala, 2019).

The experiences of other countries, which have gone through similar stages of development, reveals that Industrial Park Development is one of the policy instruments that can be used to effectively address these constraints. The Ethiopian Industrial Parks Development Corporation (IPDC) was established in 2014 to avail developed land and pre-built sheds equipped with all-encompassing utilities and infrastructural facilities (IPDC, 2015).

2.3.1.1. Incentives to Encourage Residence in Industrial Parks

The government provides the following fiscal and non-fiscal incentives to those companies who will reside inside industrial parks; Fiscal incentives include income tax exemptions, Customs duty exemptions and ease of access to industrial park space at promotional rate. While non-fiscal incentives include one stop shop services, customs facilitation, expedited visa procedure, guarantee against expropriation, the right to own immovable property, guarantee for remittance of funds and the right to open and operate foreign currency account (EIC, 2017).

Income tax exemptions are stated for both industrial park developers and industrial park residents or enterprises. For industrial park developers they get: 10-15 years income tax exemption depending on location of industrial park (10 years if in Addis Ababa or Special Zones of Oromia surrounding Addis Ababa, and 15 years in other areas). Industrial park enterprise (Resident companies inside industrial parks): Up to 10 years income tax exemption, up to 6 years exemption depending on sector of engagement, additional 2-4 years exemption for industrial park enterprises with at least 80% export. Expatriate

employees of industrial park enterprises get up to 5 years personal income tax exemption after issuance of business license by the investment (EIC, 2017).

Customs Duty exemption are provided for importing the following items; Capital goods and accessories: Can be imported duty free by manufacturing industries. Spare parts: up to 15% of the total value of the capital goods can be imported duty free. Machinery spare parts: Enterprises inside industrial parks with 100% export can enjoy importing 100% of machinery spare parts duty free. Construction materials: Can be imported duty free based on approved Bill of Quantity (BoQ). Motor vehicles: During construction, a maximum of 2 pickup trucks can be imported duty free. After getting business license and commencement of operational export, a maximum of 3 minibuses, 2 cargo trucks, 2 SUVs, 3 hybrid SUVs and buses required to transport permanent employees can be imported duty free. Also, special purpose trucks such as crane trucks, garbage trucks, ambulances, fire trucks, refrigerated trucks etc can be imported duty free in line with the specific investment needs and for own use. Partial exporters: Can import duty free a maximum of 2 station wagons upon reaching paid up capital investment of Ethiopian Birr 200 million or above, and over 60% export performance for 3 consecutive years (EIC, 2017).

Industrial Park developers can import duty free a maximum of 2 SUVs and 3 hybrid SUVs after getting business license and become operational. All raw materials needed for the production of export commodities can be imported duty free. Personal effects of industrial park residents can be imported duty free (EIC, 2017).

2.3.2. The Textile Industry

The textile industry is primarily concerned with the production of yarn, and cloth and the subsequent design or manufacture of clothing and their distribution. Up until the Industrial Revolution, many products in the textile industry were made at home and without the use of machines. But, the creation of machines led to the creation of factories, and soon fabric was mass produced (Whiting, 2015).

Currently, Ethiopian textiles and apparel industry encompasses spinning, weaving, finishing of textiles, manufacture of cordage, rope, twine, netting, knitting mills, and manufacturing of wearing apparel (Addis Ababa Chamber of Commerce and Sectorial Association, 2015).

The government of Ethiopia focuses on the textile industry as a strategic sector to drive investment in the country. Ethiopia's long history in textiles began in 1939 when the first garment factory was established. Based on Ethiopian country data, in the last 5 to 6 years, the textile, and apparel industry have grown at an average of 51% and more than 65 international textile investment projects have been licensed for foreign investors, during this period (Akter, 2017).

According to Mr. Zhang Xi'an, the Vice President of the China Chamber of Commerce for Import and Export of Textile and Apparel (CCCT) in recent years there is great progress made in the development of the textile industry. He believes Ethiopia can become an important T&A manufacturing hub (ITC, 2019).

The government has also prioritized the development of this sector, set up the Ethiopian Textile Industry Development Institute (ETIDI) to strengthen the overall value chain, and created a conducive investment climate for the sector. These efforts have been acknowledged by all participants, even though the above outlined challenges remain to be solved (ETIDI, 2010).

One of the main reasons for this focus on this sector is because, manufacturing, a key feature in industrialization movement, needs to take a higher share in Ethiopia's GDP as it is a great tool to drive the whole growth because it is linked with several sectors while impacting employment and ensuring structural transformation. Nonetheless, the manufacturing sub-sector still holds the lowest share of GDP and the service sector remains the leading contributor to real GDP growth. In order for the government to achieve its aim of utilizing the manufacturing sub-sector as a means to achieve higher and more sustainable growth, developing industrial parks is the way to go (Zhang et al., 2018). The industrial parks are believed to deliver the potential of increasing the share of manufacturing in GDP which is currently very low (5.5% of the GDP in 2017/18) along with the share of export in GDP which stood at 3.4% of the GDP in 2017/18. In addition, the fact that the sector is capital saving and labor intensive would contribute a lot towards reducing unemployment by creating job opportunities for a number of citizens which in turn boost up the economy of the country (CEPHEUS, 2019).

The current status of industrial parks in Ethiopia indicate that 81 out of 141 active firms in the industrial parks are engaged in the production of Textile and Garment while the rest focus on the production of metallic and non-metallic products and leather products (CEPHEUS, 2019).

It is true that just a few years ago, Ethiopia was not a preferred place for Foreign Direct Investment (FDI) and still there are many problems like no proper infrastructure, skilled labor etc. , but recently the country has emerged as a great place for FDI. Now the country immensely attracts FDI, especially in textile and garment sector.

The Ethiopian Government is looking to develop the garment industry into a global sourcing hub and has set ambitious targets to grow garment exports. These targets include expanding export earnings to \$1 billion by 2020 and boosting the share of garment and textile exports to 22% of total exports (de Haan and Theuws, 2018).

The establishment of industrial parks, offering targeted incentives for exporting firms, has also been an influential mechanism for attracting foreign lead firms and manufacturers from key garment producing countries to Ethiopia (Oqubay, 2015; Staritz et al., 2016; Staritz and Whitfield, 2017). The government regards industrial parks as a gateway to FDI. Lacking resources for large-scale development, it also sees the establishment of these parks as a way to minimize the cost of infrastructure development, reduce pollution and make effective use of scarce land (Mihretu and Llobet, 2017).

The other main reason for the government's focus on the textile and garment industry is because it wants to diversify exports from agricultural product to strategic sectors like textile and garment manufacturing. The textile industry in Ethiopia appeals to foreign investors mainly due of the three reasons; low manpower cost, raw material and low energy cost. Ethiopia's textile and garment industry witnessing rapid growth, as a number of domestic and multinational firms are being engaged in the production of textile and apparel for domestic and global markets. In the path to industrialize Ethiopia, the sector is given prominent position in boosting export, creating job opportunities, and as a model to other sectors as well. This recent surge in Ethiopia's textile and apparel production and export to the global markets shows that the country has the potential to become one of the leading textile and Apparel hubs of Africa and might be able to match the anticipated export value of equivalent of 30 billion USD with bold vision of transforming the action into compelling new apparel sourcing hub for brand, retails and their suppliers (Berhe, 2018).

In addition, the textile sector is labor-intensive in its nature, and Ethiopia is the second populous country in Africa with large number of young people, and a potential for a huge domestic market. Also, the country is situated in a strategic position, at the crossroad of the Middle East, Europe, and the U.S. This creates a favorable condition to expand textile factory in the country (EIC, 2017).

S/N	2005 (2012/13)		2006(2013/13)		2007(2014/15)		2008(2015/16)		2009(2016/17)	
	Destination Country	Value	Destination Country	Value	Destination Country	Value	Destination Country	Value	Destination Country	Value
1	Germany	47,024	Germany	58,811	Germany	51,459	Germany	35,167	Germany	30,661
2	Turkey	18,589	Turkey	27,712	Turkey	19,786	United States	12,014	United States	18,315
3	China	10,539	China	8,680	United States	8,036	Turkey	10,676	Turkey	7,872
4	Italy	5,681	Italy	4,815	Italy	6,171	Italy	4,829	Italy	6,748
5	United States	3,673	United States	4,706	China	3,130	China	2,532	China	3,675
6	Sudan	3,648	Sudan	3,046	Sudan	2,827	United Kingdom	2,043	United Kingdom	2,608
7	United Kingdom	2,063	United Kingdom	1,657	United Kingdom	1,843	France	1,823	France	2,514
8	Netherlands	1,931	Belgium	879	Norway	1,175	Sudan	1,453	Iran	2,232
9	Saudi Arabia	1,385	Andorra	263	Netherlands	680	Kenya	1,210	Sudan	2,095
10	Belgium	1,380	Djibouti	259	Kenya	514	Norway	947	Austria	1,873
11	Korea	1,235	Indonesia	116	Korea	432	Spain	835	Kenya	1,286
Total		98,988	Total	111,354	Total	98,061	Total	77,971	Total	89,340

Source: Ethiopian Revenue and Custom Authority

Most of Ethiopia's garment exports are destined for Germany, while other European countries receive small quantities. The United States also receive a portion of the exports. Despite Initiatives such as the Africa Growth and Opportunity Act (AGOA), Common Markets of East Africa (COMESA) and other bilateral trade agreements with Western countries which offer free trade benefits and access to the global and regional market, Ethiopia much like other African countries have not fully utilized these opportunities. For example; only less than 10% of Ethiopia's textiles is exported to the U.S. As a result, the government has established a National AGOA Center under the Ministry of Trade to help companies better utilize AGOA (Wossenyeleh, 2014).

2.3.2.1. Challenges faced by the Ethiopian Textile Industry

Although Ethiopia is a recommended market for investment in textiles, there are still a lot of challenges that the country and investors are facing. One of these challenges is the efficiency in factories which is as slow as 40 to 45% in production both in textile or garment assembly units. This problem is mainly due to underdeveloped processes and lack of education or training amongst manpower (Abdella, 2017).

Another challenge is the cycle time and delivery. Cycle time can extend up to 150 days due to the lack of available raw materials. Country data indicates only 40% of the total needed materials are available in Ethiopia while 60% are imported. As compared to other countries, production in Ethiopia takes about 45 to 60 days longer. The lack of marketing is also a concern for the textile industry in Ethiopia. Many factories with state-of-the-art machinery are currently idle. Ethiopian companies need to adopt a more aggressive marketing strategy to eradicate this concern (Abdella, 2017).

Challenges also include restrictions in technology specifically in the underdeveloped digital processing of transactions. Manual arrangements via phone and lack of efficient systems using basic technology tools such as emails etc is a hampering factor too. Hopefully, in the years to come, the government will see bigger opportunities associated with better technology and make these available to its people. Hence, the textile industry in Ethiopia has much room for development (Oqubay, 2018).

2.3.2.2. External Factors Affecting Textile Firms

Availability of raw material affects the production of textile companies as it would force them to either compromise quality of their product or raise the final price. Lack of reliable infrastructure is another burden for most manufacturing companies. It would force the company to incur unwanted additional costs in terms of logistics, production, set up cost and other parts of operation (Weldesilassie, 2017).

Given the fact that industrial parks provide access to a well-established infrastructure along with other necessary services to entrants into the manufacturing sector; they reduce not only the hustle of setting up suitable manufacturing space, but also reduce a significant amount of cost the company would have spent if they were to set up on their

own. Industrial parks also ensure that resident companies get access to market, especially for those exporting their products. This is because their location is ideal for the export value chain and logistics (EIC, 2017).

2.4. Gaps in the Literature

Despite the fact that there are several studies conducted separately regarding the textile industry and industrial parks in Ethiopia, there is scarce information on the combined topic of the textile industry and the difference in financial performance of textile companies brought forth by the involvement of industrial parks. In other words, there has not been a clear statement whether there is a difference in financial performance between textile companies residing inside industrial parks and those operating outside industrial parks and on facilities setup and run by themselves. Most studies conducted on textile industry focus on either one company or a specific part of operation of selected companies. Most studies, including ones conducted outside of Ethiopia fail to assess and compare the two groups mentioned in this study, i.e. textile manufacturing companies residing inside industrial parks and those operating outside industrial parks and on their own.

Chapter Three: Research Methodology

3.1. Research Design

This research mainly aims to identify if there is a difference in the financial performance (profitability and efficiency) of textile manufacturing companies residing inside industrial parks and those operating outside industrial parks. Therefore, it will employ a comparative financial performance analysis method in order to try and capture this difference while proving profitability and efficiency of those companies.

For this research we are going to employ financial ratio analysis which is one of the financial performance analysis techniques as the first layer of analysis. Some of the financial ratios analysis we will use for this research are as follow; Profitability ratio and Efficiency.

As mentioned in the theoretical literature review part of this research, Profitability ratio is a metrics made up of other ratio calculations which will allow to determine a business's ability to generate income against expenses and other related costs during a particular period (Kenton, 2019). In addition, the empirical review indicates the usage of profitability ratios such as Net profit ratio analysis and ROI to be very fruitful in identifying profitability of companies for comparative financial analysis purposes and this is especially shown in a research conducted by Andrea Harris in 2017. There are also relevant indications on the usage of efficiency ratios namely; Total asset and fixed asset turnover, Working Capital Turnover ratio and Inventory to Net working capital ratio. It can be well understood both from the theoretical and empirical reviews that these ratios help in the financial analysis process by identifying the efficiency of a company especially for comparative purposes (Harris, 2017). .

Their calculation is as follows;

$$\text{Net profit ratio} = \text{Net profit} / \text{Net sales} * 100$$

Net profit= Revenue from operation – cost of revenue from operation + Non-operational income – Tax

$$\text{ROI} = \text{Net profit before interest, tax and dividend} / \text{Capital employed} * 100$$

There are two methods to acquire capital employed. These are the liability approach or the asset approach but both give the same result.

Liability approach

Capital employed = shareholder fund + Non-current liabilities

Asset approach

Capital employed = Non-current asset + Working capital

Non-current asset = Fixed asset + non-current trade investment + long-term loans and advances

Working capital = current asset – current liabilities

This research will use four ratios to determine the efficiency of textile manufacturing companies that are operating both inside and outside industrial parks. They are as follows;

$$\text{Total Asset Turnover} = \text{Sales} / \text{Average total assets}$$

It measures the overall investment efficiency by including the impact of both short-term and long-term assets and if the ratio is high it means it is efficient all things held constant. For example; a total assets turnover ratio of 4 means that for each dollar of total assets, the business earns 4 dollars in revenue.

$$\text{Fixed Asset Turnover} = \text{Sales} / \text{Average fixed assets}$$

It measures the efficiency of a company's long-term capital investment and all things held constant, if the ratio is higher it means it is efficient.

$$\text{Working Capital Turnover} = \text{Sales} / \text{Average working capital}$$

Working capital = Current Assets – Current Liabilities

It reflects the amount of operating capital needed to maintain a given level of sales and if the ratio is higher then, it means the company is utilizing its working capital very efficiently. However, only operating assets and liabilities should be considered during the calculation of working capital.

$$\text{Inventory to Net working capital ratio} = \text{Inventories} / \text{Total current asset}$$

This ratio helps identify if inventories are staying longer than they should and if working capital is being held up at unsold inventories. If the ratio is higher then, the company has more inventories at hand and its working capital is held up at those inventories but if the ratio is low then the company has low inventories and financially doing well as it will be able to utilize working capital for other vital activities.

However, the sample sizes we obtained for this research are not sufficient to have a normal distribution. The alternative for that is to use a nonparametric test. A well-known nonparametric test to compare outcomes between two independent groups as mentioned in the literature review is the Mann Whitney U test which is also known as the Wilcoxon Rank Sum Test (Milenovic, 2010). It has been used in several comparative financial performance researches and has been proven to be a very useful tool. This test will have two hypotheses which will be put as follows;

H_0 : The two population are the same

H_1 : The two population are different

Therefore, this research will employ the Mann Whitney U Test in order to compare results obtained from financial ratio analysis namely; profitability ratios and efficiency ratios conducted on companies that are operating both inside and outside industrial parks. Companies residing in industrial parks (Resident companies) will be one group and companies operating outside industrial parks (Nonresident companies) will be another group and these two groups will be treated as independent groups throughout the research. The Mann Whitney U test will compare the financial ratios outcomes for these two group and will be able to identify if residing in industrial parks or operating outside industrial parks have a significant difference on their financial performances.

This study will then compare the results from the mentioned ratios in order to identify which group of companies is better performing than which in both efficiency and profitability.

For this study, Bole Lemi and Eastern Industry Zone were chosen because they are the ones with the most well established companies and most of their resident enterprises report their taxes to the Middle-income Taxpayers' office (MTO).

This research chose textile industry because almost 60% of resident enterprises are textile manufacturing companies and the government is allocating its attention and efforts into making this sector a key driver of the country's economic growth.

Given the fact that most resident companies report to MTO, this study selected textile manufacturing companies that are operating outside industrial parks and are reporting their tax to MTO as counterparts or the second group for the comparative analysis. This is mainly to allow the study to compare companies that are operating inside the same income bracket and reduce any bias that may arise from being in two very different income brackets.

3.2. Research Approach

Given the fact that this research will focus on textile manufacturing companies operating inside and outside industrial parks and are reporting their taxes to the Middle Income Tax Payers office (MTO), the nature of the data to be used will be numerical. In addition the statement of the problem of this research is quantifiable and according to other related researches reviewed under the empirical review, the most relevant research approach to be implemented is quantitative research approach. Therefore, this research will employ a quantitative research approach.

3.3. Data Type and Data Source

The type of data this research will use is secondary data collected from Ministry of Revenue. The data includes financial statements and balance sheets of resident and non-resident companies for the years of 2016 up to 2018. This is because the most recent and complete data set to be found were during the stated years. Unlike time series analysis, a cross-sectional ratio analysis across companies in the same industry does not require to have data over several periods. As a result the data type will be secondary.

The source of the data used in this research is document review specifically income statements and balance sheets of textile manufacturing companies both operating inside and outside industrial parks and these documents are obtained from MTO (Middle income Tax Payers Office) given the fact that the study prefers to analyze companies in similar income bracket.

3.4. Population and Sample

This research's population group is made up of two comparative subgroups. The first one consists textile manufacturing companies residing or operating inside industrial parks and the second consists textile manufacturing companies operating outside industrial parks, meaning set up their own manufacturing facilities and other related necessary processes instead of plugging in already set up space with shared infrastructure and ease of access to other related facilities and services. The total population for this study would be textile manufacturing companies in and around Addis Ababa, with a total number of 33.

The sample of this research for the first subgroup is made up of randomly selected textile manufacturing companies operating inside Bole Lemi Industrial Park and Eastern Industrial Zone. The main reason as to why these two industrial parks were selected to be the sample for the first group of this study is because their tenants' submit their tax reports to Middle Income Taxpayers' office (MTO) branch offices located in Addis Ababa and given the fact that this study aims to address the significance of difference in financial performance between textile manufacturing companies inside and outside industrial parks in and around Addis Ababa, these industrial parks are the most suited for this study.

The sample set for the second group is made up of textile manufacturing companies in and around Addis Ababa operating outside industrial parks and submit their tax report to MTO.

The random sampling technique used by this research selected 10 textile manufacturing companies from resident companies and 10 from nonresident companies, resulting in a total of 20 sample size. The reason why this research chose the random sampling technique is to provide equal probability of being chosen and prove unbiased representation of the population. Both groups report to MTO and their financial statements and balance sheets were collected from Ministry of Revenue, MTO branch.

Chapter Four: Result and Analysis

4.1. Result and Analysis

4.1.1. Profitability Ratio

The profitability ratio for this study was conducted using two ratios. The first one was the net profit ratio which is calculated using Net profit and Net Sales. This ratio will help indicate how profitable the company is from generated revenue or net sales. In this research the net profit is employed to assess the profitability of textile manufacturing companies that are both residents and nonresidents in industrial parks. The second profitability ratio used was ROI, one of the most widely used profitability ratios. This ratio indicated how profitable investors could be by showing the company's ability to return the investment.

For ease of language this study will address textile manufacturing companies operating inside industrial parks as "Resident Companies" and those operating outside industrial parks as "Nonresident companies".

In addition, this research will use the alphabet to represent the randomly selected textile manufacturing companies as their names were not disclosed by the tax office when obtaining the data in order to maintain their anonymity.

Table 4.1 Profitability ratio of both resident and nonresident companies

Resident companies	Year	Net Profit Ratio	ROI	Non-resident Companies	Net Profit Ratio	ROI
A	2016	51.82	5.74	K	20.74	8.85
A	2017	168.85	2.38	K	4.21	0.90
A	2018	(213.29)	15.92	K	39.19	17.88
B	2016	(150.90)	27.58	L	39.54	42.24
B	2017	(171.98)	30.38	L	39.70	(51.16)
B	2018	483.04	13.36	L	46.27	(71.13)

Resident companies	Year	Net Profit Ratio	ROI	Non-resident Companies	Net Profit Ratio	ROI
C	2016	155.39	102.11	M	9.72	3.14
C	2017	149.85	753.69	M	26.96	4.07
C	2018	(156.00)	55.69	M	17.21	2.88
D	2016	103.84	26.18	N	43.72	(53.52)
D	2017	73.28	2.77	N	135.87	(43.65)
D	2018	60.62	10.94	N	(633.65)	(278.86)
E	2016	126.15	9.11	O	(247.56)	(40.08)
E	2017	162.71	4.38	O	109.13	(21.34)
E	2018	115.00	15.33	O	(2,000.11)	(45.36)
F	2016	(99.83)	42.55	P	(60.48)	(14.08)
F	2017	271.24	56.40	P	47.82	(32.05)
F	2018	167.42	27.98	P	0.25	20.80
G	2016	214.17	14.20	Q	28.31	(1,172.55)
G	2017	168.72	10.20	Q	(7.69)	(1.17)
G	2018	657.08	5.71	Q	(559.02)	(24.23)
H	2016	146.50	2.44	R	2.03	0.41
H	2017	56.10	1.56	R	22.93	12.55
H	2018	53.69	1.33	R	18.30	6.47
I	2016	103.20	4.48	S	7.71	3.91
I	2017	94.84	31.14	S	(59.13)	(37.97)

Resident companies	Year	Net Profit Ratio	ROI	Non-resident Companies	Net Profit Ratio	ROI
I	2018	88.92	12.17	S	(4,163.08)	(80.99)
J	2016	76.91	98.70	T	57.32	56.09
J	2017	83.77	90.75	T	58.46	38.09
J	2018	88.99	101.41	T	493.50	(1.41)

The result of this ratio analysis proves the study's first objective which is to identify the profitability of textile manufacturing companies that are both operating inside and outside industrial parks. As we can see from the table above, both groups of companies are on average profitable.

In 2016 total of four both resident and nonresident companies (two from each group) had negative net profit ratios while the remaining companies in both groups enjoyed positive net profit ratios. 2017 witnessed negative net profit ratio in one resident company and two nonresident companies while 2018 followed with two resident companies and four nonresident companies with negative net profit ratios.

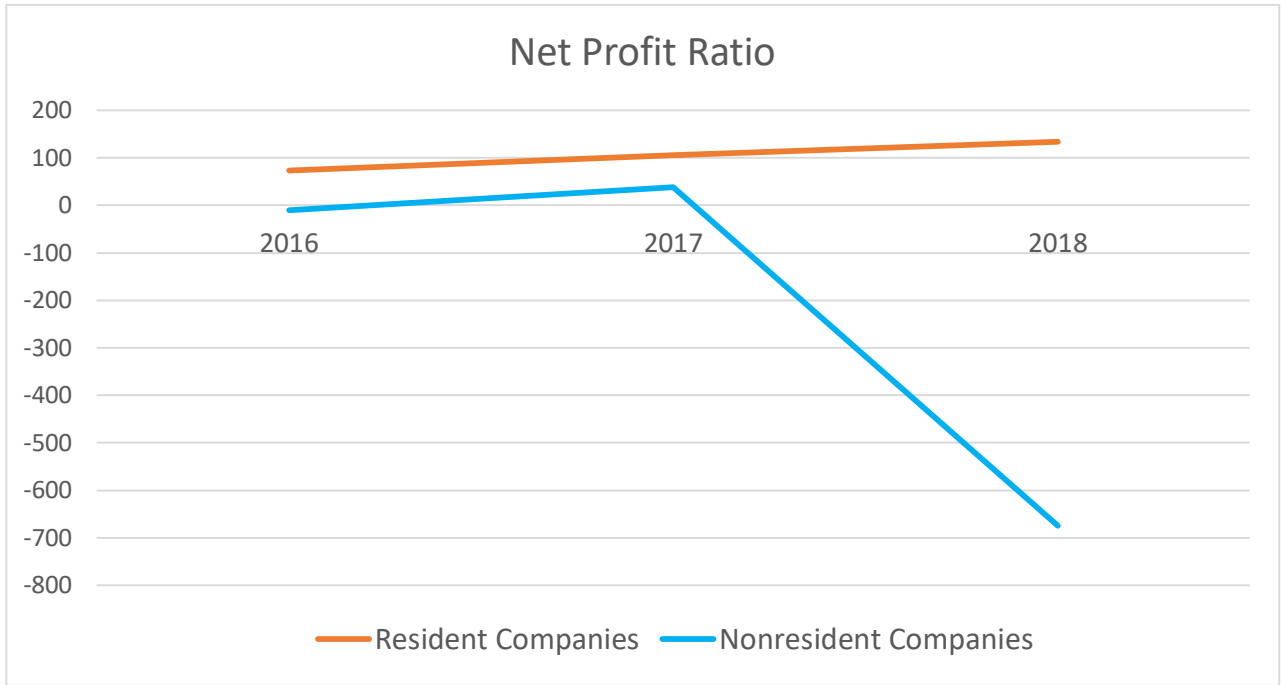
As for ROI ratios; while resident companies demonstrated all positive ROIs throughout the three years, it was not the same for nonresident companies. In 2016 four nonresident companies had negative ROIs followed by six companies in both 2017 and 2018.

The net profit ratio analysis for both groups had majority of positive and high result indicating profitability of textile manufacturing companies, while the ROI for nonresident groups in 2017 and 2018 indicates majority were experiencing negative ROI and therefore were not profitable for those years.

The net profit ratio for companies operating inside industrial parks for three years was consistently higher than those operating outside industrial parks. And this indicates that the resident companies are more profitable than their counterparts. The result of this ratio analysis is a good indicator that resident companies are able to gain higher profit from the revenue (net sale) they generate.

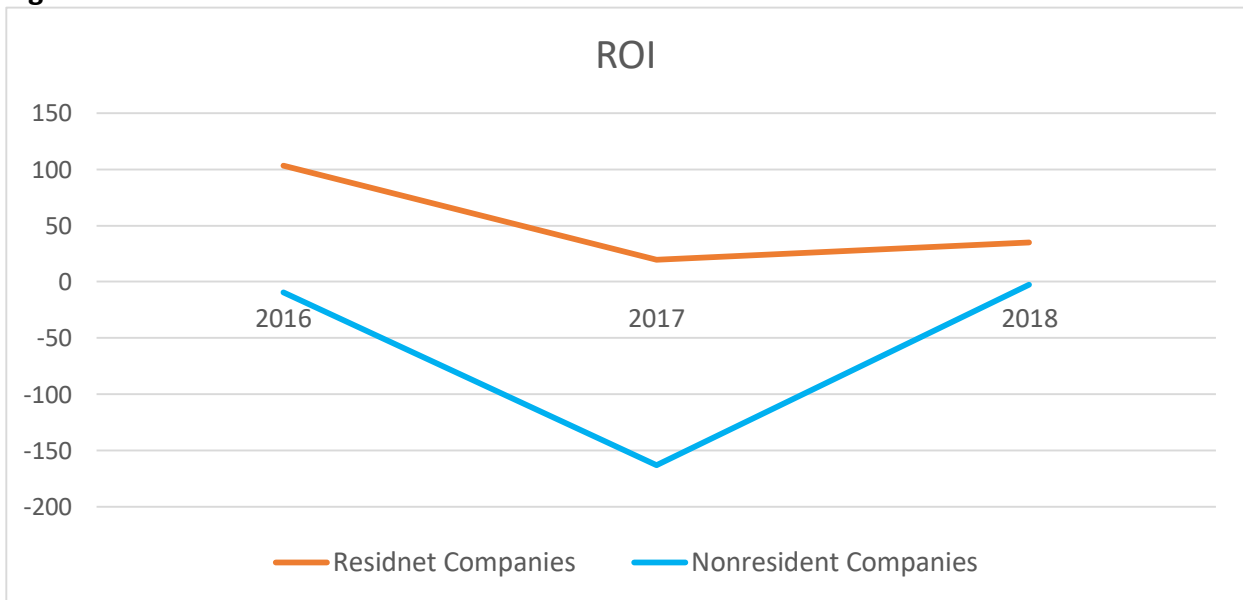
Given the fact that the net profit ratio uses net sales which most companies had negative result of and the ROI didn't use this variable, the outcomes show negative and positive results for the same company.

Figure 4.1 Net Profit Ratio



The same result took place for the ROI ratio implying similar indication. Most non-resident companies have negative net profit ratio implying negative net sales or net profit and also negative ROI which shows negative profit as well.

Figure 4.2 ROI



The fact that majority of the net profit and ROI ratios of resident companies are higher than nonresident companies implies that profitability of textile manufacturing companies increases by residing and operating inside Industrial parks.

4.1.2. Efficiency Ratio

The second objective of this study was to identify the efficiency of textile manufacturing companies that are both operating inside and outside industrial parks. The first efficiency ratio conducted was the total asset turnover ratio followed by fixed asset turnover ratio, working capital turnover ratio and finally inventory to net working capital ratio. The following table contains total asset turnover ratio and fixed asset turnover ratio for both resident and nonresident companies. These ratios indicate efficiency of companies in terms of utilizing their fixed and total assets to generate revenue. In this study, these ratios gave more or less similar result for both groups under comparison indicating both have satisfying level of efficiency.

Table 4.2 Total Asset and Fixed Asset Turnover ratio of resident and nonresident companies

Resident companies	Year	Total Asset Turnover Ratio	Fixed Asset Turnover	Non-resident Companies	Total Asset Turnover Ratio	Fixed Asset Turnover
A	2016	0.41	1.71	K	0.35	1.62
A	2017	0.32	0.38	K	0.41	1.25
A	2018	0.38	0.45	K	0.77	1.05
B	2016	0.27	5.72	L	1.30	(3.82)
B	2017	0.46	(16.77)	L	1.72	120.76
B	2018	0.86	(11.83)	L	2.33	6.61
C	2016	0.36	15.18	M	0.44	1.76
C	2017	0.46	(7.83)	M	0.23	1.28
C	2018	0.20	0.50	M	0.18	0.82
D	2016	0.55	0.54	N	0.48	20.64

Resident companies	Year	Total Asset Turnover Ratio	Fixed Asset Turnover	Non-resident Companies	Total Asset Turnover Ratio	Fixed Asset Turnover
D	2017	0.46	0.58	N	0.19	2.04
D	2018	1.16	1.63	N	0.04	0.98
E	2016	0.33	2.90	O	0.85	(36.10)
E	2017	0.24	1.84	O	0.88	(8.10)
E	2018	0.28	1.97	O	0.78	(1.76)
F	2016	0.20	(55.10)	P	0.72	2.76
F	2017	0.44	(48.18)	P	0.85	2.13
F	2018	0.43	(18.35)	P	72.81	124.97
G	2016	0.21	(3.89)	Q	7.08	(0.27)
G	2017	0.45	(2.65)	Q	0.35	0.47
G	2018	0.79	(3.03)	Q	0.09	0.12
H	2016	0.23	0.56	R	0.52	0.76
H	2017	0.18	0.84	R	0.73	1.00
H	2018	0.19	1.09	R	0.55	0.73
I	2016	0.30	(0.38)	S	0.82	23.77
I	2017	0.65	1.04	S	1.10	(3.38)
I	2018	0.38	0.58	S	1.53	6.58
J	2016	4.58	4.58	T	1.23	1.67
J	2017	7.19	7.19	T	0.67	0.81
J	2018	11.51	0.91	T	0.00	0.00

The total asset turnover ratio calculated for three years turned out to be positive for both groups of companies indicating both groups are efficient in this specific area. Both groups of companies efficiently utilize their total assets to generate revenue. As for Fixed asset turnover ratio, in the year 2016 total of six companies from both groups (three from each) resulted in negative fixed asset turnover ratio. In 2017, resident companies group had four negative fixed asset turnover ratio while nonresident companies group had two and in 2018 resident companies group had three negative fixed asset turnover ratio analysis result while nonresident companies group had only one. However, majority of companies in both groups demonstrate the fact that they utilize their total assets and fixed assets efficiently to generate revenue.

The fixed asset turnover ratio uses the net sales variable, which most companies have negative result of and leading to negative fixed asset turnover ratio. This is an indication of a poor performance of sales generated by the fixed assets and can be supported by Kenton in his article published in 2017 regarding fixed asset turnover ratio.

Figure 4.3 Total Asset Turnover Ratio

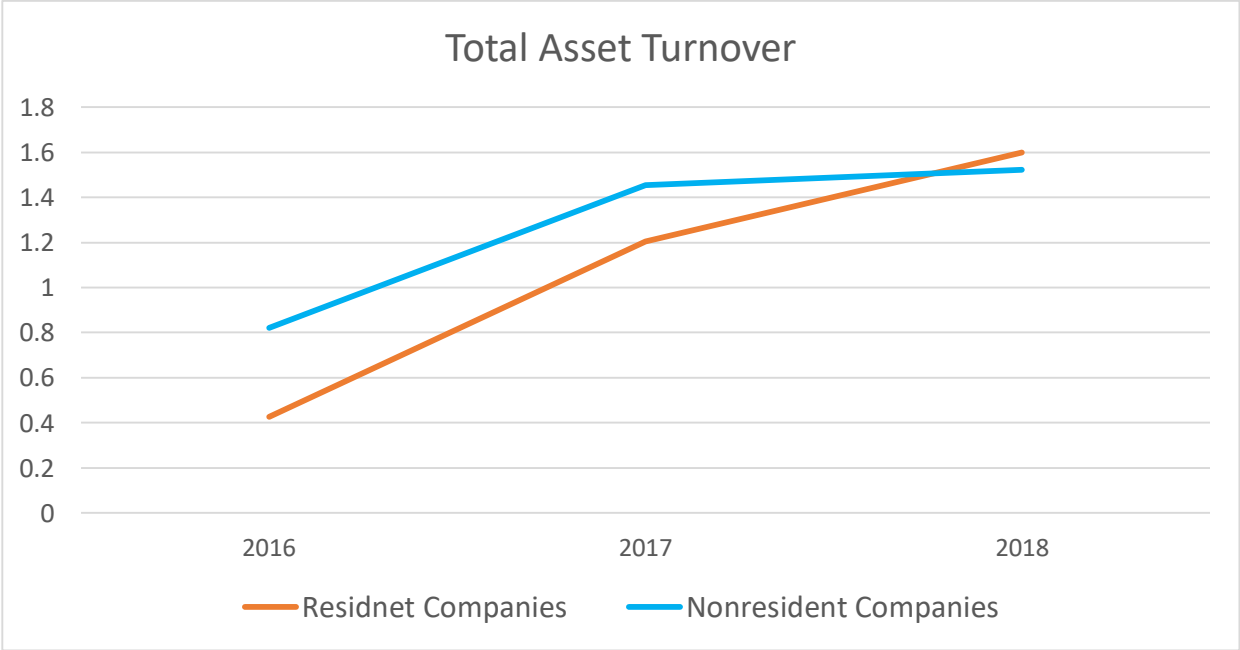
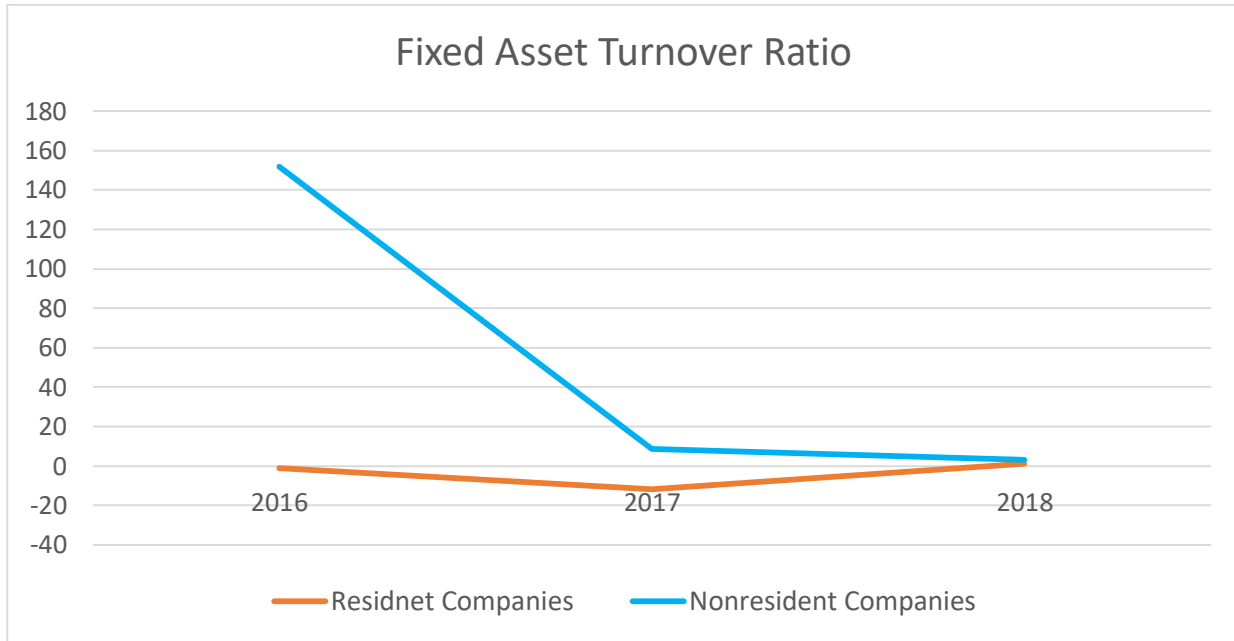


Figure 4.4 Fixed Asset Turnover Ratio



The following table contains working capital turnover ratio and inventory to net working capital ratio. The result of the analysis indicate that working capital turnover ratio for resident companies were higher than for nonresident companies. This indicates that resident companies use their working capital more efficiently than nonresident companies, hence are more efficient in this area. Inventory to networking capital ratio on the other hand was lower for resident companies which is also a positive indicator of how there are less inventories at hand and that their working capital is not held up in their inventories.

Working capital turnover ratio for resident companies group had one negative result in the year 2016 but there were zero negative results in 2017 and 2018. However, for the nonresident companies group, there were two, six and five negative results for the years 2016, 2017 and 2018 respectively. These results indicate that the respective companies' current liabilities exceed their current asset.

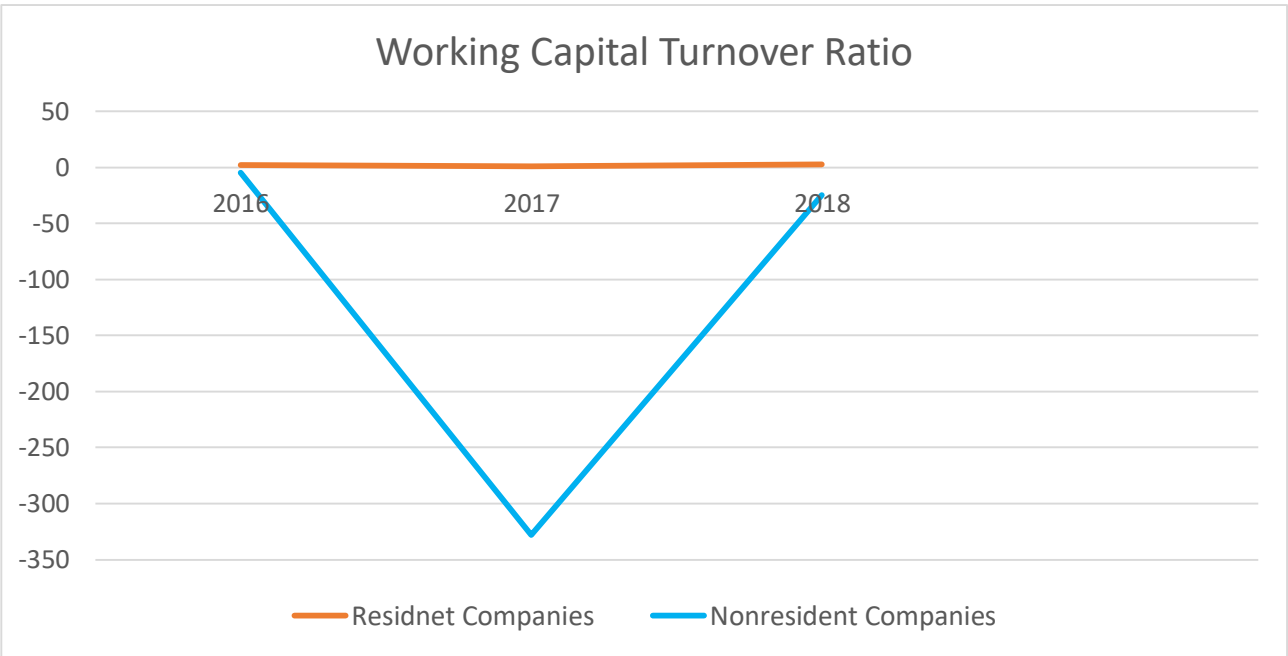
Nonetheless, majority of the results from the two analysis indicate that both groups of companies are efficient and hence proves the second objective of this research.

Table 4.3 Working capital turnover ratio and Inventory to net working capital ratio for both

Resident companies	Year	Working Capital Turnover ratio	Inventory to Net Working Capital Ratio	Non-resident Companies	Working Capital Turnover ratio	Inventory to net working capital ratio
A	2016	1.61	0.20	K	(18.71)	1.17
A	2017	2.10	0.57	K	0.82	1.23
A	2018	6.95	0.74	K	(32.84)	4.90
B	2016	0.34	0.17	L	1.49	1.11
B	2017	0.45	0.15	L	(2.73)	1.96
B	2018	0.81	0.15	L	(5.76)	1.10
C	2016	0.49	0.74	M	0.98	0.44
C	2017	1.20	0.56	M	0.37	0.39
C	2018	0.75	0.53	M	0.36	0.59
D	2016	8.54	0.84	N	9.52	1.23
D	2017	2.65	0.14	N	(1,406.25)	1.38
D	2018	4.14	0.13	N	2.29	1.29
E	2016	0.45	0.56	O	1.78	0.98
E	2017	0.29	0.49	O	1.14	1.14
E	2018	0.34	0.61	O	0.75	1.13
F	2016	0.30	0.13	P	1.39	6.72
F	2017	0.54	0.27	P	(1.51)	3.80
F	2018	0.45	0.33	P	(1,876.65)	4.06
G	2016	0.21	0.42	Q	(0.89)	1.41
G	2017	0.39	0.23	Q	(1.52)	1.37

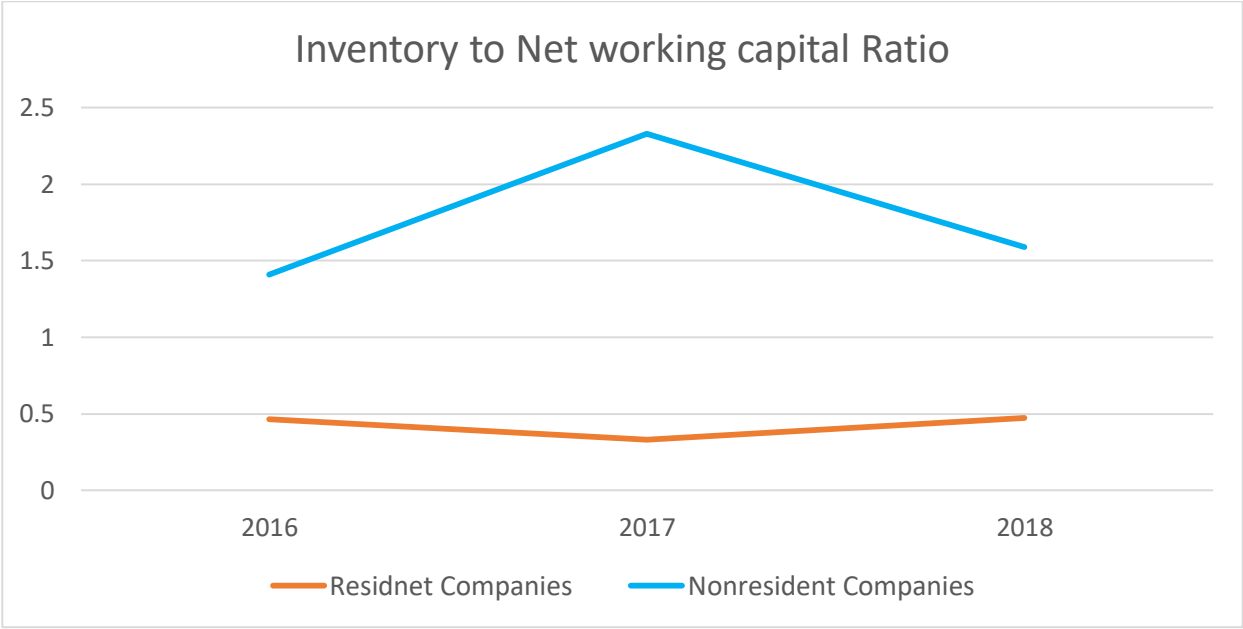
Resident companies	Year	Working Capital Turnover ratio	Inventory to Net Working Capital Ratio	Non-resident Companies	Working Capital Turnover ratio	Inventory to net working capital ratio
G	2018	0.65	0.19	Q	2.20	0.98
H	2016	0.28	0.26	R	7.56	1.33
H	2017	0.24	0.22	R	(162.99)	1.37
H	2018	0.22	0.37	R	3.67	1.34
I	2016	(0.24)	0.89	S	1.04	0.11
I	2017	1.93	0.86	S	1.12	0.08
I	2018	1.11	0.85	S	(3.98)	3.17
J	2016	8.27	0.67	T	8.31	1.29
J	2017	7.10	0.25	T	(107.25)	2.10
J	2018	8.71	0.16	T	(0.10)	4.11

Figure 4.5 Working Capital Turnover Ratio



The working capital turnover ratio for resident companies was positive and higher than those of nonresident ones. This shows that resident companies efficiently use their working capital to generate revenue. This can also be supported by the fact that they reside inside industrial parks which reduces other cost of operation and marketing and enables the companies to allocate their working capital efficiently.

Figure 4.6 Inventory to Net Working Capital Ratio



The overall result of the financial ratio analysis points to the fact that resident companies have better financial status than nonresident companies.

Average analysis of the three years

Three years average of financial ratio analysis conducted for the resident companies indicate that they have high net profit ratio, high ROI, high total asset turnover ratio, high fixed asset turnover ratio with only three negative results, high working capital turnover ratio and low inventory to net working capital ratio. All mentioned results show that resident companies or textile manufacturing companies operating inside industrial parks are profitable and efficient and therefore have a health financial performance.

Table 4.4 Average financial Ratios of Three years for Resident Companies

Companies	Net Profit Ratio	ROI	Total Asset Turnover Ratio	Fixed Asset Turnover	Working Capital Turnover ratio	Inventory to Net working capital
A	2.46	8.013583	0.367088876	0.8498965	3.552419222	0.505604142
B	53.39	23.77132	0.527675254	-7.6233241	0.534039188	0.158508104
C	49.74	303.8269	0.341655818	2.6206125	0.813663977	0.610929951
D	79.25	13.30056	0.724563028	0.9157063	5.110376383	0.371476995
E	134.62	9.607731	0.282576631	2.2383393	0.360373334	0.554548473
F	112.94	42.3094	0.356850022	-40.54357	0.431133584	0.244217058
G	346.66	10.03806	0.482623576	-3.1896631	0.417783379	0.28181654
H	85.43	1.775322	0.199947484	0.8313374	0.249275553	0.283155715
I	95.65	15.92963	0.442491268	0.4141801	0.93365846	0.865012468
J	83.22	96.95145	7.760996817	4.2275247	8.025986025	0.361739111

On the other hand three years average financial ratio analysis for nonresident companies indicates that they relatively have lower net profit ratio, lower ROI, more or less similar total asset turnover ratio and fixed asset turnover ratio as resident companies, lower working capital turnover ratio and slightly higher inventory to net working capital ratio. These result point to the notion that the financial performance of nonresident companies or textile manufacturing companies operating outside industrial parks is relatively lower than those operating inside industrial parks. However, the results also indicate their profitability and efficiency to a certain extent.

Table 4.5 Average financial Ratios of Three years for Nonresident Companies

Company	Net profit ratio	ROI	Total Asset Turnover Ratio	Fixed Asset Turnover	Working Capital Turnover ratio	Inventory to Net Working Capital
K	21.37757333	9.209016	0.510768644	1.30486797	-16.90884822	2.433970294
L	41.83354016	-26.6823	1.782431674	41.1829927	-2.331979797	1.389907312
M	26.94709169	3.361351	0.284553158	1.28801997	0.57052114	0.471107725
N	-151.3495223	-125.341	0.236304221	7.88783412	-464.8111638	1.300755642
O	-712.8470522	-35.5936	0.83781627	-15.3188523	1.222825529	1.08365349
P	-4.135696861	-8.44254	24.7907049	43.2855622	-625.5872109	4.8632303
Q	-179.4663669	-399.315	2.508192616	0.10584396	-0.067261869	1.256231242
R	14.4209137	6.476225	0.600371275	0.8324807	-50.584949	1.346529141
S	-1404.834259	-38.3545	1.149593335	8.98877284	-0.606956997	1.121557146
T	203.0931191	30.92249	0.632712724	0.82634005	-33.01225053	2.500691457

Even if the results above indicate a difference in financial performance between resident and nonresident companies, the study still has to verify the statistical significance of these differences. And this will fulfil the third and fourth objectives of the study which are to prove the statistical significance of difference in profitability and efficiency between resident and nonresident companies. The research employed Mann Whitney U test to prove the statistical significance of the mentioned differences.

4.1.3. Mann Whitney U Test

After the financial ratios were conducted, the study employed Mann Whitney U Test to test the significance of variance between the financial performances of the two comparative groups. The result of this analysis shows that the difference in financial performance of textile manufacturing companies operating inside and outside industrial parks is statistically significant for majority of the ratios while for two ratios it was insignificant, during the course of three years.

Table 4.6 Mann Whitney U Test of Three Years of all Financial Ratios

Financial Ratio	U stat 2016	U Stat 2017	U stat 2018	U Stat Average	U Critical
Net profit ratio	19	19	19	13	23
ROI	20	15	17	11	23
Total Asset Turnover	15	38	46	28	23
Fixed Asset Turnover	47	33	35	33	23
Working Capital Turnover	37	17	20	12	23
Inventory to net working capital ratio	15	14	3	4	23

Table 4.7 Result of significance testing by Mann Whitney U Test

Financial Ratio	Significance 2016	Significance 2017	Significance 2018	Average
Net profit ratio	Yes	Yes	Yes	Yes
ROI	Yes	Yes	Yes	Yes
Total Asset Turnover	Yes	No	No	No
Fixed Asset Turnover	No	No	No	No
Working Capital Turnover	No	Yes	Yes	Yes
Inventory to net working capital ratio	Yes	Yes	Yes	Yes

The Mann Whitney U test result shows that for profitability ratios the difference between the two comparable groups is statistically significant. Which means the profitability of the textile manufacturing companies residing inside industrial parks is different and slightly higher than those operating outside and the fact that they are operating inside industrial parks contributes positively for their profitability.

On average results obtained for total and fixed turnover ratios indicate that the difference is not significant. Which means the efficient level of how they utilize their fixed and total assets to generate revenue is not affect by the location of their factories.

However, the results obtained from working capital turnover ratio and inventory to net working capital ratio point in a different direction. While both ratios proved the efficiency of both resident and nonresident companies, the result for resident companies shows that their level of efficiency is slightly higher in both ratios than nonresident companies. In addition, the Mann Whitney U test shows that there is a statistically significant difference in efficiency between the two groups based on the last two ratios.

Therefore, it is reasonable to say that there is a statistically significant difference in financial performance between textile manufacturing companies operating inside industrial parks and those operating outside industrial parks.

Chapter Five: Conclusion and Recommendation

5.1. Conclusion

According to the results obtained from net profit ratio and ROI, the research has identified that both resident and nonresident companies are profitable. The study then goes on to identify the efficiency of both resident and nonresident companies by the use of total asset and fixed asset turnover ratios, working capital turnover ratio and inventory to net working capital ratio. As the results show, both resident and nonresident companies are efficient. Therefore the first and second objectives of this study have been met.

The third objective of this study was to identify the statistical significance of difference in profitability and efficiency between resident and nonresident companies. By the use of a well-known non parametric test, Mann Whitney U Test, the study was able to prove the statistical significance of the said difference in profitability and efficiency between resident and nonresident companies.

Based on the result of the analysis it is fair to conclude that textile manufacturing companies residing and operating inside industrial parks have higher profitability ratio than those operating outside industrial parks. They also have better efficiency ratios especially working capital turnover ratio and inventory to net working capital ratio than their counterparts. What is more interesting is that inventory to net working capital ratio shows the level of inventory left at hand and the working capital it is holding which could have been use for other operational activities. This ratio for resident companies is low indicating lower inventory at hand and this might be because of the ease of access to market advantage these companies have because they operate inside industrial parks. Therefore the study was also able to attain the forth objective as well which was to identify which group has better profitability and efficiency.

One of the key advantages of operating inside industrial parks is the ability to utilize resources efficiently. This is mainly because most of the cost the manufacturers would have spent to set up their facilities are covered by the park and in addition other facilities are provided to the tenants in order to ease their business transaction, including marketing and sales of their products.

In addition, the incentives provided by the government to encourage manufacturing companies to operate in industrial parks provide tenants with the opportunity to reduce several costs and expenses, which gives them the advantage to have a relatively better financial performance than those that are operating on their own in a similar industry.

5.2. Recommendation

- This research recommends for textile manufacturing companies to operate inside industrial parks as it provides several opportunities that enhance the profitability and efficiency of resident companies.
- This research also recommends for policy makers to give more attention to the better establishments and implementation of industrial parks especially focusing on textile, as they are the gate way to a more profitable and efficient companies.
- Even if resident companies have a relatively better financial performance than nonresident companies, there are still come difficulties they face which results in a lower performance in some of the companies. Therefore, this study would like to recommend for Industrial park operators to facilitate more marketing opportunities and better infrastructure which will allow tenants to reduce their cost while increasing their revenue. It will also help reduce inventory at hand and free help up working capital.
- Further research in this area must be conducted in order to identify exact factors catering to the difference which was proven to be statistically significant in this research.

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