

**DETERMINANTS OF FINANCIAL PERFORMANCE OF EXPORT PROCESSING
ZONE COMPANIES AT ATHI RIVER IN KENYA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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Sign:.....

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I do hereby confirm that I have examined the master's dissertation of

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And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

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ABSTRACT

Export Processing Zones (EPZs) in Kenya were created with the aim of enhancing manufacturing sector output, exports, employment, value addition and technology transfer. However, their success in promoting trade across countries has been significantly realized. This study assessed the determinants of financial performance of Export Processing Zones companies in Kenya Companies with a focus on Export Processing firms at Athi River. The study key objectives was to assess the effect of investment policies, internal controls, resource management and operational efficiency on financial performance. The study adopted descriptive research design approach. The target population of the study was the 73 EPZ companies in Athi River, Kenya. The study adopted the use of secondary data where panel data was used. The study conducted Multicollinearity, Heteroscedasticity, Normality test, Autocorrelation Test and Durbin – Wu – Hausman Test. The data was analyzed using descriptive and inferential statistics. The results indicated that Investment policy had a positively and significantly relationship with financial performance of the Export Processing Zones companies in Kenya. Internal controls was also positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. Resource Management was positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. Lastly, Operational Efficiency had a positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The study concluded that Investment policy, Internal Control, Resource Management and Operational Efficiency affected financial performance of the Export Processing Zones companies in Kenya in a positive and significant way. The study recommends that the EPZ firms should consider having more current allocation on investments given the EPZ incentives provided in the EPZ zones such as tax incentives, lower land rentals, exemption of import, export and value-added taxes and reduced regulatory oversight in administrative and customs procedures. Further, the firms should develop internal control systems that are in line with their financial performance of the organization. The study recommends that the EPZ firms should work to reduce their resource cost variance by to maintain optimal use of their resources. Lastly, the study recommends that firms should strive to reduce their operating expenses and implement efficient strategies that address asset and inventory turnover.

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DEDICATION

I dedicate this thesis to my family who bore the demands of this course. I wish to appreciate my parents for their constant prayers for me and bringing me up the way they did.

ACRONYMS AND ABBREVIATIONS

| | |
|--------------|------------------------------------|
| EPZ: | Export processing Zones |
| ILO: | International Labour Organization |
| ROI: | Return on Investment |
| EPZA: | Export Processing Zones Authority |
| AGOA: | African Growth and Opportunity Act |
| FDI: | Foreign Direct Investment |
| CBK: | Central Bank of Kenya |
| IBD: | Investment building deductions |
| ID: | Investment deduction |
| MPT: | Modern Portfolio Theory |
| NSE: | Nairobi Securities Exchange |

TERMS AND DEFINITIONS

Financial Performance: the ability of a firm to attract and manage the resources in several different ways to develop a competitive advantage (Iswatia & Anshoria, 2007). The balanced scorecard identifies organizational from four different perspectives and metrics that are financial, customer, internal business processes, and learning and growth (Kaplan & Norton, 2001).

Internal controls: involves the mechanisms, rules, and procedures implemented by a company to ensure the integrity of financial and accounting information, promote accountability, and prevent fraud (Chen, Yang, Zhang & Zhou, 2020).

Investment policies: it outlines the underlying philosophies and processes for the selection, monitoring and evaluation of the investment options offered by the plan in a company (Cherkasova & Kuzmin, 2018).

Operational Efficiency: is a measure of how much costs are incurred during a given economic or financial activity, where lower costs equal greater efficiency (Pusva & Herlina, 2017).

Resource management: it involves the process which businesses manage their various resources effectively. It involves planning so that the right resources are assigned to the right tasks (Abrantes, & Figueiredo, 2015).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Export processing zones (EPZs) are areas that offer incentives and a barrier-free environment to promote economic growth by attracting foreign investment for export-oriented production. Export processing zones were formed with the greatest intention of providing timely flow of investments. The programs were started with the aim of promoting and facilitating export-oriented investments, developing an enabling environment for investment in the export sector, addressing infrastructural and institutional constraints for efficient export-led production (Thuita, 2017).

Globally, EPZs have evolved from initial assembly and simple processing activities to encompass high-tech and science parks, finance zones, logistics centers, and even tourist resorts (Litovskaya, Izmailova & Simakov, 2019). They now include not only general-type zones but also single-industry zones and single-commodity zones. Both the number of EPZs and the number of countries hosting them have expanded rapidly. There are now more than 600 EPZs in more than 100 countries (ILO, 2020). Many U.S. manufacturers and their distributors use these zones for receiving shipments of goods that are reshipped in smaller lots to customers throughout the surrounding areas. The United States and Mexico together are the most active EPZ operators, with 213 and 107 respectively (ILO, 2020). In Asia, China has 124 EPZs, many on the scale of full-sized urban and industrial developments, complete with community infrastructure such as education, transport and social services (ILO, 2020). Bangladesh, Pakistan and Sri Lanka have extensive EPZ strategies (Eberhard, Gratwick, Morella & Antmann, 2017).

In Africa there are 47 EPZs, 14 of which are in Kenya (Export Processing Zone Authority, 2020). In Mauritius, the entire territory has been zoned for export processing and the judicious management of EPZs is probably the major contributing factor to that country's economic growth (Quaicoe, Aboagye & Bokpin, 2017). African states, from Egypt in the north to Zambia in the south, have embraced export processing zones (EPZ) as a strategy to attract foreign investment. Also known as special economic zones, industrial development zones or free trade zones, the EPZ aims to attract export-oriented manufacturing investment by setting aside enclaves where investors receive a wide range of incentives and developed infrastructure (Adu-Gyamfi, Asongu & Sonto, 2020).

EPZ are faced with such state led policy and it affects them at large. EPZs thus, make up for infrastructural deficiencies and procedural complexities that characterize developing countries and offer a more conducive investment climate (Amodu, 2020). Export processing zones are special regulatory areas within countries established to promote export led growth. EPZs have been called the vehicles of globalization (Van Heerden, 2015). While nation-states have developed exceptional spaces of economic activity for over a century, the recent phenomenon and proliferation of EPZs refers to a period beginning in the late 1960s, when developing countries sought to attract investment by exploiting a comparative advantage through concessionary incentives (Swarnapali, 2014).

Trade related infrastructure and institutional framework are generally deficient in these countries (Obongo, 2020). Besides, too many windows in the administrative set up, bureaucratic hassles and barriers raised by monetary, trade, fiscal, taxation, tariff and labour policies further increase production and transaction costs of exports. Since country-wide development of infrastructure is expensive and implementation of structural reforms require time due to socio-

economic and political realities, export processing zones (EPZs) are considered an strategic tool for the promotion of exports in these countries (Mondal, 2011). According to this modern view, the EPZ offers quality infrastructure and hassle-free business environment permitting an economy to promote and diversify exports and develop a competitive industrial base. The profitability of any Export Processing zone leads to increased wealth of the investors through the higher dividends that are paid which in turn leads to improved quality and standards of living of the people of the country.

1.1.1 Determinants of Financial Performance

According to studies from Litovskaya, Izmailova and Simakov (2019); Eberhard, Gratwick, Morella and Antmann (2017); Thuita (2017), some of the key determinants of financial performance includes leverage, liquidity, size, risk, and tangibility, investment policies, internal controls, resource management and operational efficiency. In the case of Export Processing zone companies, this study used investment policies, internal controls, resource management and operational efficiency as they are non financial companies. In addition, the capital structure of the EPZ companies such as leverage, liquidity, size, risk, and tangibility are not largely defined as opposed to the public listed companies.

Investment policies outlines the underlying philosophies and processes for the selection, monitoring and evaluation of the investment options offered by the plan in a company (Cherkasova & Kuzmin, 2018). These policies entail the policy document, approval of investments, investment on exports and re-investment of profits. Investment policies aim to provide the companies with low-risk and high-quality long-term real returns, combining long-term capital appreciation, income yield and significant financial and social impacts. In the Export Processing zones, the

investment policies entail the export mode, export region, investment on exports and re-investment of profits

Internal controls involve the mechanisms, rules, and procedures implemented by a company to ensure the integrity of financial and accounting information, promote accountability, and prevent fraud (Chen, Yang, Zhang & Zhou, 2020). The key internal controls involve control environment, internal audit, risk assessment, control activities, information and communication, and monitoring (Akisik & Gal, 2017). The key components of the internal control are control environment, risk assessment, control activities, information and communication, and monitoring (Koutoupis & Pappa, 2018; Hamdani & Albar, 2019).

Resource management involves the process which businesses manage their various resources effectively. It involves planning so that the right resources are assigned to the right tasks (Abrantes, & Figueiredo, 2015). Managing resources involves schedules and budgets for people, projects, equipment, and supplies. Resource management ensures that internal and external resources are used effectively on time and to budget. According to Ghobaei-Arani, Souri and Rahmanian (2019); Krae and Tikhono (2019), the indicators for resource management include resource mobilization, resource allocation, resource utilization and resource scheduling.

Operational efficiency entails how much costs are incurred during a given economic or financial activity, where lower costs equal greater efficiency (Pusva & Herlina, 2017). Operational efficiency also indicates the relationship between an organization's output and input that when healthy, helps businesses cut on operational costs. These operating costs include costs of goods sold, operating expenses, administrative and overhead costs (Ngumo, Collins & David, 2020; Hamdani & Albar, 2019).

1.1.2 Financial Performance

The term ‘financial performance’ is used as a general measure and has been the primary concern of business. High financial performance is interpreted to imply that management is effective in employing the company’s resources (Naser & Mokhtar 2004). Performance is the ability of a firm to attract and manage the resources in several different ways to develop a competitive advantage (Iswatia & Anshoria, 2007). The balanced portfolio theory states that the portfolio composition of the company, its profit and the return to the shareholders is the result of the decisions made by the management and the overall policy decisions. Therefore, performance is influenced by both internal and external factors. Internal factors include organizational size, capital, management efficiency and risk management capacity. The major external factors that influence performance are macroeconomic variables such as interest rate, inflation, economic growth and other factors like ownership.

Performance factors can be structured in: factors of efficiency, that refer to economic, social and organizational efficiency; internal environmental factors that refer to ownership, management, company size, complexity, technical endowment, location, human potential, informational and intellectual capital, financial position, organizational culture; and external environmental factors: economical, technological, political, demographical, cultural, scientific, organizational, legal, social, educational, environmental (Sima, 2010). Financial performance measures the results of a firm’s policies and operations in monetary terms. These results are reflected in the firm’s return on investment, return on assets and value added (Seethaiah, 2012).

The balanced scorecard identifies organizational from four different perspectives and metrics that are financial, customer, internal business processes, and learning and growth (Kaplan & Norton, 2001). Organizational performance is the measure of actual output or results of an

organization against its intended outputs, namely goals and objectives (Center for Creative Leadership, 2020). Financial performance was measured using Return on Investment (ROI) as the financial measure.

1.1.3 Export Processing Zones Companies

EPZ programme in Kenya was initiated in 1990 as a tool in the export-led growth strategy. The programme aimed to attract export-oriented investments and achieve job creation, diversification and expansion of exports, increase productive investments, technology transfers and creation of backward relationship between them and the domestic economy (KEPZA, 2013). The program is managed by the Export Processing Zones Authority (EPZA) and it promotes export oriented industrial investment within designated zones. It offers a range of attractive fiscal, physical and procedural incentives to ensure lower cost operations, faster set up and smoother operations (Guru, 2012). The programme of the EPZ has a central role in the country's development plan, Kenya Vision 2030, which aims to develop, split, and distribute the existing EPZ and develop three additional zones in Mombasa, Kisumu, and Lamu. The zones are also to allow a wider range of commercial activity.

The EPZ firms are in general to locate within the existing zones in Kenya, which are situated in Nairobi, Voi, Athi River, Kerio Valley, Mombasa, and Kilifi. The country had 47 zones in 2018, but about half are single firms, or EPUs (McCormick, 2018). The largest zone is Athi River, one of two public zones controlled by the EPZ Authority. Athi River is situated 30 km from Nairobi in the Mavoko municipality; the EPZ is thus close to the capital of Kenya, the Jomo Kenyatta Airport, which is the largest airport in Eastern Africa; and the Nairobi–Mombasa standard Gauge Railway (USITC, 2017).

Establishing infrastructure for the Athi River zone was estimated to cost about USD30 million, or KSh2, 536 million, to develop. The World Bank covered about 80% of the costs, and the Kenyan government covered the rest. The Kenyan EPZ Authority (KEPZA) constructed most of the zone's industrial buildings that were built by 2005. Private contractors have since constructed a number of buildings for leasing within the zone, reducing the government's direct costs and hence the financial risk of the zone programme. Kenya uses trade programs or policies to enhance modern exchange of goods and services across borders, to do so it is setting up Export Processing Zones (EPZ) (World Bank, 2012).

1.2 Statement of the Problem

In Kenya companies operating under EPZ benefit from major incentives especially capital allowances such as Investment building deductions (IBD), Investment deduction (ID) and Wear and Tear allowances by claiming deductions from their corporate tax liability. Despite these incentives, majority of the EPZ companies have reported low performance in the last five years. This has led to increase in the number of EPZ enterprises considerably in addition to the initiation of AGOA, mainly within the textile and apparel sectors. Further, competition has led to developed countries dominating the domestic firms, a situation that calls for government intervention to encourage financial performance of EPZs (EPZ, 2019).

According to Ohaka and Agundu (2018) firms that are eligible for incentives normally have higher returns. Governments all over the world consider incentives to enhance economic activities and investments by firms, they use incentives to channel some special economic activities towards some important sectors of the economy where they are either not felt or not existing at all. However, the tax incentives have not translated to improved performance in the EPZ companies

(KEPZA, 2018). Thus, this study intended to look at other determinants that affect the performance of these EPZ companies.

Previous studies have been conducted to investigate determinants of financial performance of firm's present research gaps. For instance, Adediran and Alade, (2013) to establish the relationship between dividend policy and corporate financial performance which indicated that dividend policy had a significant effect on corporate financial performance. However, the study on dividend policy presents little linkage with the EPZ firms being private firms. Mwangi, Muathe and Koimbei (2014) investigated the relationship between capital structure and financial performance of EPZ firms in Kenya and indicated that capital structure had a significant effect on financial performance. However, the current study focuses on investment policy, internal controls, resource management and operational efficiency as the key factors. Tembur (2016) conducted a study on the determinants of financial performance of Export Processing Zone firms in Kenya. The study used firm size and asset utilization as independent variables that confirmed a non-significant effect on financial performance. The study presents a conceptual gap as it focused on investment policy, internal controls, resource management and operational efficiency as the key determinants. Therefore, this study sought to bridge the research gap assessing the determinants of Export Processing Zones companies in Kenya with focus on EPZ Athi River.

1.3 Objective of the Study

The general objective of the study was to assess the determinants of financial performance of the Export Processing Zones companies in Kenya with focus on EPZ Athi River.

1.3.1 Specific Objectives

This study focused on the following specific objectives;

- i. Assessing effects of investment policy on financial performance of Export Processing Zones companies in Kenya
- ii. Evaluating effects of internal controls on financial performance of Export Processing Zones companies in Kenya.
- iii. Identifying effects of resource management on financial performance of Export Processing Zones companies in Kenya.
- iv. Establishing effects of operational efficiency on financial performance of Export Processing Zones companies in Kenya.

1.4 Research Hypotheses

The study tested the following research hypotheses:

H₀₁:Investment policy has no statistical significance on financial performance of EPZ firms in Kenya.

H₀₂:Internal controlshas no statistical significance on financial performance of EPZ firms in Kenya.

H₀₃:Resource management has no statistical significance on financial performance of EPZ firms in Kenya.

H₀₄:Operational efficiency has no statistical significance on financial performance of EPZ firms in Kenya.

1.5 Justification of the Study

This research aimed to evaluate the association between on determinants of Export Processing Zones. Specifically, the study aimed to establish the effect of investment policy, internal controls, resource management and operational efficiency on the financial performance of

EPZ firms in Kenya. The need to realize growth and performance in the Export processing Zones companies remains core in promoting foreign and local investments in Kenya. The results from the study are useful to various stakeholders who use this information for investments.

1.6 Significance of the Study

This study makes contribution to various sectors;

1.6.1 EPZ Firms Managers

It is beneficial to EPZ Companies managers as it helps them better understand the determinant factors of their financial performance and thus be able to focus on improving these factors to ensure that their financial performance keeps improving.

1.6.2 Exporting Sector

This study provides a guide policy makers in the Exporting sector especially the Export Processing Zones Authority of Kenya and the Treasury in coming up with policies which ensure favorable indicators to spur growth and profitability in this EPZ sector.

1.6.3 Researchers, Academicians and Scholars

Researchers and academicians in the field of finance, economics and exporting will find this study a useful guide for carrying out further studies in the area.

1.7 Scope of the study

This study focused on evaluating the determinants of the financial performance of Export Processing Zones Companies in Kenya. The study key objectives was to assess the effect of investment policies, internal controls, resource management and operational efficiency on

financial performance of the EPZ companies. The study adopted a descriptive research design and use of secondary data. The time scope of the study was between 2015 - 2020.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter outlines theoretical framework of the study and review of previous studies on determinants of financial performance. It discusses theories relevant to the study. The concept of the study was also developed under the conceptual framework section and finally reviews of empirical studies that have previously been conducted on the area of financial performance of Export Processing Zones companies in Kenya were done.

2.2 Theoretical Review

Theoretical review provides an explanation for a class of event. It is a way of binding together a multitude of facts so that one may comprehend them all at once (Li and Wang, 2010). A theory performs a number of functions. First, it allows us to organize our observations and to deal meaningfully with information that would otherwise be chaotic and useless. As French mathematician Jule-Henri Poincare (2010) observed: Science is built up with facts, as a house is with stones, but a collection of facts is more a science than a heap of stones in a house. Second, theory allows us to see relationships among facts and uncover implications that would not otherwise be evident in isolated bits of data. Third, it stimulates inquiry as we search for knowledge about many different and often puzzling aspect of behavior. A theory, then, inspires a research that can be used to verify, disprove or modify that theory.

2.2.1 Theory of constraints

This theory was formulated by Goldratt and Cox in 1986 in production environment explaining that the throughput rate of a system is determined by bottleneck (Dang, 2011). This

introduced theory of constraints as a means of managing a factory production process with an aim of maximizing throughput rate. Maximizing throughput rate would in turn maximize profit, cash flow and return on investment. In the multi-project environment, theory of constraints is applied as critical chain methodology using the same principle of a capacity constrained resource. This critical chain methodology is used by large companies such as Hitachi (Umble & Murakami, 2010), ABB, Boeing, Hewlett Packard, EPZs and others (Stratton, 2011) for project management. Even a small company can implement the full Critical Chain as the software is available at USD250 (Stratton, 2011).

Critical chain was shown to be an approach with significant differences to traditional critical path scheduling (Steyn, 2011; Lechler, Ronen & Stohr, 2015). In a large multi-project environment, like export industry it would benefit greatly from critical chain scheduling. The Export industry uses multiple costly resources in the context of multiple exports executed by a single company. Case studies exist for large companies such as Impala Platinum (Phillis & Gumede, 2011) and complex project such as refurbishment of products (Best, 2016) but literature is sparse for medium to large export processing zones.

The Theory of constraints is relevant to the study as it informs on the variables on resource management. The theory is a management paradigm that views any manageable system of resources as being limited in achieving more of its goals by a very small number of constraints. The EPZ companies therefore would require a design to manage their constrained resources with the aim of maximizing them to performance. This also requires the input of investment policies that are aligned with the resources.

2.2.2 Modern Portfolio Theory

This theory was founded by Harry Markowitz published in 1952 by the Journal of Finance. He was later awarded a Nobel Prize for developing the MPT. In investment, modern portfolio theory management is a critical theory. It tries to look for the most efficient combinations of assets to maximize portfolio expected returns for given level of risk (Chowdhury, 2016). Alternatively, minimize risk for a given level of expected return. Portfolio theory is presented in a mathematical formulation and clearly gives the idea of diversifying the assets investment combination with a purpose of selecting those assets that will collectively lower the risk than any single asset (Domician, 2016). In the theory, it clearly identifies this combination is made possible when the individual assets return and movement is opposite direction. An investor therefore needs to study the value movement of the intended asset investment and find out which assets have an opposite movement. However, risk diversification lowers the level of risk even if the assets' returns are not negatively or positively correlated (Omisore et al., 2012).

The theory shows that an investor can construct a portfolio of multiple assets that will maximize returns for a given level of risk. Likewise, given a desired level of expected return, an investor can construct a portfolio with the lowest possible risk. Based on statistical measures such as variance and correlation, an individual investment's return is less important than how the investment behaves in the context of the entire portfolio. MPT makes the assumption that investors are risk-averse, meaning they prefer a less risky portfolio to a riskier one for a given level of return. This implies that an investor will take on more risk only if he or she is expecting more reward.

This theory addresses the investments policies variable. The modern portfolio theory demonstrates that organizations manage their businesses on a portfolio basis (Saira, 2011). With assumptions that investors are homogenous and risk averse, they have to be motivated to invest,

they need a rate of return that will compensate them for taking on the risk at the end of period of holding given assets. It is therefore important for EPZs to deploy prudent financial management practices in order to instill control within the various portfolios with a target of maximizing returns on each portfolio.

2.2.3 Stewardship theory

This theory was developed by Donaldson and Davis in 1991. It is a new perspective to understand the existing relationships between ownership and management of the company (Ayele, 2012). In this perspective, stewards are managers working to protect and make profits for the shareholders. The steward theory states that a steward protects and maximises shareholder's wealth through firm Performance. Stewards are company executives and managers working for the shareholders, protects and make profits for the shareholders. The stewards are satisfied and motivated when organizational success is attained. It stresses on the position of employees or executives to act more autonomously so that the shareholders' returns are maximized. The employees take ownership of their jobs and work at them diligently.

Stewardship theory accepts that managers are stewards whose responsible is to align their behaviors with the objectives of their principals. This shows that internal auditors can also be a steward in assisting the achievement of organizational objective through the influence of various relevant internal controls.

The theory is relevant to the study as it also explains how the internal controls are influenced by the owners and leadership as stewards on performance of the EPZ firm. The objective in Stewardship theory then is to reduce the agency costs incurred by principals by imposing internal controls to keep the agent's self-serving behavior.

2.3 Empirical Review

The section reviews previous literature on the study variables that investment policies, internal controls, resource management and operational efficiency and their effect on the dependent variable that is performance.

2.3.1 Investment policy and Financial Performance

Masindet, Ndambiri and Oluoch (2018) assessed the influence of investment policies on financial performance of commercial banks listed in NSE. The target population of the study comprised of eleven commercial banks listed in Nairobi Securities Exchange. From regression analysis there was enough evidence to report that there is a positive and significant effect of investment policy on financial performance of listed commercial banks. Further, correlation analysis revealed a positive and significant effect of investment policy and financial performance. In addition, correlation analysis showed that there is a positive and significant effect of asset quality policy and financial performance. Correlation analysis revealed positive and significant effect of dividend policy and listed commercial banks financial performance. Regression analysis revealed a positive and significant effect of cash management policy and listed commercial banks financial performance.

According to Nissim and Ziv (2011), investment policy decisions of companies are the primary element of corporate policy. Investment, which is basically the benefit of company in return for its assets and savings, is determined by different factors in an organization. These factors include financing limitations, investment chances and choices, firm size, pressure from shareholders and regulatory regimes (Nissim & Ziv 2011). Nevertheless, the investment profitability of a firm is not only the source of cash flow to the shareholders but it also offers

information relating to firm's current and future performance. Thus, investment policy is one of factors that affect the financial performance of EPZ companies.

Company profitability on investment has been found to have an influence on financial performance (Chiaraah & Nkegbe, 2014; Hamidzadeh, 2015). Profitability on investment has a variety of proxies for its measurement such as Earning per share, Return on assets, and Return on equity as well as profit margin. In this study, it was measured by the ROA. This measure was found to be appropriate given the nature of information to be disclosed in the annual financial reports for the EPZA Athi River. It is calculated as the ratio of net income/loss divided by total assets (Tuvadaratragool, 2013). Agency theory proposes that administrators of bigger productive organizations may wish to unveil more financial data on investments to get individual favorable circumstances like pay or continuation of their administration (Inchausti, 2011). Similarly, managers of EPZ companies may wish to enhance financial reporting on investment quality in their respective entities to obtain personal advantages similar to those managers in competitive companies.

Kemboi (2010) carried out an investigation on, how listed firms in Kenya financed their investment in capital market. The objective of the study was to establish sources of funds for the firm and find out whether cash flows and debt influence the firm's investment decisions. Tests were based on fundamentals investment equations in which cash flow and debt were added as explanatory variables. All these variables were normalized by beginning capital stock. The study showed a significant positive relationship between debt and investment levels in the firm. It was concluded that corporate investments in firms did not respond to market fundamentals and liquidity position. The findings support corporate life cycle hypothesis whereas firms become mature, past investments generate higher cash flows, making present investment rates to slow down and

become less attractive, hence the negative empirical relationship between investment and cash flows.

A significant relationship has been observed between investment policy as measured by ROA and ROE and the financial performance (Hossain, 2012). On the contrary, other researchers have found no relationship between investment policy and financial performance (Tasios & Bekiaris, 2012; Waweru & Riro, 2013). Differences in research findings could be explained by differences of measure employed in calculating investment policy profitability.

Mutswenje (2019) conducted a survey of the factors influencing investment decisions by taking the case of individual investors at the NSE. The author concluded that personal factors such as gender, income status, level of education, level of experience with stock market, the characteristics of the securities, and the investor needs influenced the investment decision. However, the study did not address the type of investment decisions adopted by investment firms.

A comparative analysis of the impact of asset allocation on portfolio performance as medium-term investments in India was carried out by Bhattacharjee (2017). The researcher collected secondary data from the mutual fund India website for three years from the year 2014 to the year 2017. The independent sample t-test was run using SPSS on the data selected. The results revealed that the average return on Equity fund was significantly greater than the average return on Debt but significantly lower than the average return on balanced funds. The researcher reckoned that investment in equity had a positive impact on portfolio performance.

Izundu, Nwakoby and Adigwe (2017) explored the influence of asset allocation on the profitability of deposit money banks in Nigeria. The research adopted a panel regression model for five selected commercial banks in Nigeria. The researchers gathered data from the banks' reported financial statements and annual statements for the period 2011 to 2015. The data obtained

was analysed through the panel ordinary least square regression model. The findings showed that the combined asset allocation variable explained 54% of changes in the banks' profits. The research found that that asset allocation was a crucial financial management tool for raising banks' profitability. Further, the study concluded that investments in equities had a positive but inconsequential effect on profitability

Andelinovic, Samodol and Pavkovic (2018) analysed asset allocation and profitability of insurers in the pre-solvency II period in Croatia. The study used quantitative data which was extracted from the financial statements of the insurers between 2008 and 2015. Data was gathered from 30 insurers out of the 34 licensed companies and analysed using cluster and panel data analysis techniques. Cluster analysis was employed for the classification of insurers according to their investment strategies and its outcome used in the forecast of the changes in asset allocation that financial regulation would bring. The study reckoned that investment in equities positively influenced the profitability of insurers though insignificantly.

Rop, Muturi and Bokongo (2015) explored the importance of investment diversification on the economic performance of Kenya's commercial banks. The research adopted an exploratory research design. A sample of forty operational commercial banks in Kenya was taken. Secondary data was collected using data collection sheets as the main data collection tool and interview schedule as the primary data. Data collection sheets were used to compile data guided by the objectives of the research. The data collected was analysed using explanatory and inferential statistics with the help of SPSS package version 20. Inferential statistics were done through ANOVA and multiple regression. The research determined that there existed a substantial relationship between buying shares and financial performance of commercial banks in Kenya and

hence the need of commercial banks to regularly buy shares to raise their performance and provide the enabling environment that will accelerate financial growth.

Bhattacharjee (2017) undertook a comparative analysis of the impact of asset allocation on portfolio performance as medium-term investments in India. The research used secondary data which was largely extracted from the mutual fund India website. The data on mutual funds was taken for a three-year window (beginning from 17/3/2014 to 17/3/2017) i.e. medium-term investments. The independent sample t-test data was run on the SPSS. Each Portfolio containing 23 stocks each had been pooled together. The overall performance of each basket was also tested using a t-test analysis with its corresponding t-table value. The study concluded that investment in mutual funds positively affected the portfolio performance for medium-term investments.

Auma (2013) investigated the effectiveness of portfolio holding on the financial performance of insurance organizations in Kenya. The research collected data from all the 46 insurance organizations trading in Kenya by December 2012. Secondary data was obtained from the year 2003 to 2012 from the Insurance Regulatory Authority, Association of Kenya Insurers, and the websites of the respective insurance companies. The study employed the use of multiple regression analysis and descriptive research approaches to determine the nature of the association. The study established that investment in real estate had a direct relationship with the overall profitability of the insurance industry and recommended that insurance companies seeking to increase their financial performance should reduce investments in real estate.

Andelinovic, Samodol and Pavkovic (2018) analysed asset allocation and profitability of insurers in the pre-solvency II period in Croatia. The study used quantitative data which was extracted from the financial statements of the insurers between 2008 and 2015. Data was gathered from 30 insurers out of the 34 licensed companies and analysed using cluster and panel data

analysis techniques. Cluster analysis was employed for the classification of insurers according to their real estate investment strategies and its outcome used in the forecast of the changes in asset allocation that financial regulation would bring. The study reckoned that investment in real estate positively influenced the profitability of insurers though insignificantly.

Rop, Muturi and Bokongo (2015) analysed the development of investment diversification on the financial performance of Kenya's commercial banks. The investigation adopted data from primary and secondary sources, used exploratory research and sampled forty (40) operational Kenyan commercial banks. The data collected was analysed using explanatory and inferential statistics with the help of SPSS package version 20. The research affirmed the presence of a consequential association between government securities and the financial performance of Kenyan commercial banks. This implied that government securities had a positive and consequential strength on the performance of commercial banks in Kenya. The research recommended that banks ought to put more effort into promoting confidence in portfolio diversification and develop marketing policies that encourage their use.

Bhattacharjee (2017) took a comparative analysis of the impact of asset allocation on portfolio performance as medium-term investments in India. The research used secondary data which was largely extracted from the mutual fund India website. The data on mutual funds was taken for a three-year window (beginning from 17/3/2014 to 17/3/2107) i.e. medium-term investments. The independent sample t-test data was run on the SPSS. Each Portfolio containing 23 stocks each had been pooled together. The overall performance of each basket was also tested using a t-test analysis with its corresponding t-table value. The study concluded that investment in mutual funds positively affected the portfolio performance for medium-term investments.

2.3.2 Internal Controls and Financial Performance

Kinyua (2016) examined the effect of internal control systems on financial performance of companies quoted in the Nairobi securities exchange. The main objective of the study was to determine the effect of internal control systems on financial performance of companies quoted in the Nairobi securities exchange. The study was considered relevant to our investigation because it examined the impact of internal control on financial performance. The study which was a primary data study adopted the descriptive research design and data were collected using structured questionnaire. The study found that internal control has a significant relationship with financial performance and concluded that internal control system is a positive significant predictor of financial performance. The findings of the study, according to the author, suggest that internal control systems especially risk management, corporate governance, control activity, internal control environment and internal audit function are significant areas management of companies should give great attention to in order to improve their financial performance.

Nyakundi, Nyamita and Tinega, (2014) carried out an investigation on the effect of internal control system on financial performance of small and medium scale business enterprises in Kenya. The major purpose of the study was to assess the relationship between internal control system and return on investment. The study which was a primary data study adopted the cross-sectional survey research design and was conducted on one hundred and seventeen (117) small and medium scale business enterprises in Kenya. Stratified and simple random sampling techniques were used while data were collected using structured questionnaire and interviews. The result of the analyses revealed a significant change in the financial performance of small and medium scale enterprises which is linked to the existence of an internal control system. It concluded that internal controls significantly influence the financial performance of Small and Medium scale Enterprises and

recommended that proprietors of Small and Medium scale Enterprises should be trained on the significance of internal control.

Ndiwa (2014) studied the assessment of Internal Control System on Financial Performance in tertiary training institutions in Kenya. Many public institutions in Kenya are faced with poor financial performance which in extreme cases has led to the closure of some of them, despite having the necessary resources to run them. The study, therefore, endeavoured to investigate the persistent poor financial performance from the perspective of internal controls which had hitherto been ignored. The general objective of the study was to establish the relationship between internal control and financial performance in tertiary institutions in Kenya. The study was limited to the African Institute of Research and Development Studies. The findings indicated that most respondents were of the view that indeed there was a relationship between internal control and financial management.

Musa (2010) study investigated the existence and adequacy of implemented security controls of computerized accounting information systems in the Saudi banking sector. The results of study revealed that the vast majority of Saudi banks have adequate security controls in place. The results also enable bank managers and practitioners to better secure their computerized accounting information systems and to champion the security of information technology for the success of their banks (Simiyu, 2011).

Whittington and Pany (2014), asserted the comprehensiveness of internal controls in addressing the achievement of objectives in the areas of financial reporting, operations and compliance with laws and regulations. They further note that internal control also includes the program for preparing, verifying and distributing to the various levels of management those current reports and analyses that enable executives to maintain control over the variety of activities and

functions that are performed in a large organization. They mention internal control devices to include; use of budgetary techniques, production standards, inspection laboratories, employee training and time and motion studies.

Njeri (2014) investigated the effect of internal controls on the financial performance of manufacturing firms in Kenya. The primary objective of the study was to determine the effect of internal control system on financial performance of manufacturing firms in Kenya. Twenty (20) manufacturing firms constituted the sample of the study. The study used primary and secondary data. Primary data were obtained using structured questionnaire while secondary data were obtained from the financial statements of the manufacturing firms surveyed. The study which adopted the multiple regression approach to data analysis found that most of the manufacturing firms surveyed had a strong control environment which impacted positively on the financial performance of the firms. The study concluded that manufacturing firms that had invested on effective internal control systems had improved financial performance as compared to those manufacturing firms that had a weak internal control system. Consequently, it was recommended that the governing body (the board) of manufacturing firms, supported by the audit committee, should ensure that the internal control system is periodically monitored and evaluated.

Ndifon (2014) study found that the institution financial statements are audited annually by external auditors. The study results further show that there is no significant relationship between internal control activities and financial performance of Cross River State College of Education. The investigation recommends proper checks and balances in all financial transactions. There should be effective and efficient security network to reduce frequent theft, threat to life and property. The study also recommends that management of the institution should organize regular training for staff on control mechanism.

Mwakimasinde, Odhiambo and Byaruhanga (2014) analyzed the effect of internal control systems on the financial performance of sugarcane out grower companies in Kenya. The specific objective of the study was to determine the effect of internal control system components on the financial performance of the sugarcane out grower companies. Internal control system was characterized by control environment, risk assessment process, information system and control activities while financial performance was characterized by cost per unit, goal attainment and profitability or surplus. The regression results also show that internal control system helps increase financial performance of sugarcane out grower companies percent. Based on the findings and conclusions of the study, the following recommendations were made; Internal control system has been found to have a statistically positive effect on performance of sugarcane out grower companies hence there is need for the sugarcane out grower companies to improve on their internal control system.

Kinyua (2015) studied the Effect of Internal Control Environment on the Financial Performance of Companies quoted in the Nairobi Securities Exchange. The objective of the study was to establish the effect of internal control environment on financial performance of companies quoted in Nairobi Securities Exchange. The findings indicated that there is a positive significant relationship between internal control environment and financial performance, which corroborates with the findings of Mawanda (2018), states that institution which have enforcement of proper internal control systems will always lead to improved financial performance. The study, therefore, recommends that internal control environment should be enhanced to further improve the financial performance of companies quoted in Nairobi securities exchange.

Kamau (2014) investigated the effect of internal controls on the financial performance of manufacturing firms in Kenya. The findings revealed that most manufacturing firms had a control

environment as one of the functionality of internal controls of the organization that greatly impacts on the financial performance of the firms. The results also revealed that the staffs were trained to implement the accounting and financial management systems, the security system identified and safeguarded organizational assets. The statistical result from the regression analysis shows that there is a positive relationship between internal control and financial performance of manufacturing firms in Kenya. The study recommends that both internal and external auditor should be constantly updated and well-grounded on international financial reporting standards (IFRS) and principles in order to enhance their knowledge and skills in application of accounting practices and to keep them updated on the contemporary issues.

Palfi and Muresan (2019) examined the importance of a well-organized system of internal control in regards to the banking sector, thus credit institutions of Romania. The analysis of the survey answers revealed that the continuous collaboration, based on periodical meetings, between all structures of bank, characterizes an effective internal audit department. The Abu Musa (2010) study investigated the existence and adequacy of implemented security controls of computerized accounting information systems in the Saudi banking sector. The results of study revealed that the vast majority of Saudi banks have adequate security controls in place. The results also enable bank managers and practitioners to better secure their computerized accounting information systems and to champion the security of information technology for the success of their banks.

2.3.3 Resource Management and Financial Performance

Shuja and Abbasi (2015) examined the effect of resource management on the business continuity management practices in banks. Data was collected from managers from a sample of 20 banks operating in Lahore, Pakistan. The results and findings of the study suggest that resource management is an effective tool used in implementing business continuity and disaster and crisis

management plans. Mobilizing organizational resources in an event of crisis, disaster or risk involves planning, attaining and arranging resources such as equipment, technical systems, workforces and their services required and needed for serving most affected or vulnerable location in order to manage a crisis or disaster and ensure smooth recovery and continuity of the business operations. Resource management is an important function for ensuring prompt management with disasters, crises and disruptions in order to ensure well timed recovery, restoration and continuity of the business processes, and therefore has a positive impact on practices directed towards business continuity management.

Muturi (2015) evaluated the factors influencing savings mobilization by bank officials in Kenya. Specific goals were to determine to what extent fraud, customer satisfaction, and branch network affects saving bank agent mobilization. A case study design was used by the study. Results of the research disclosed that agent transaction affects saving mobilization by bank agents in Kenya to a large extent, money deposit requirements are made in Kenya branch's national bank, thus negatively affecting savings mobilization by bank agents in Kenya.

Campbell and Park (2017) asserted that the performance of an organization is the key component ingaining the competitive advantage. According to the resource based view, the performance of an organization is the key component in gaining the competitive advantage. This theory explains why organizations succeed or fail in a given market place and suggests that the abilities of a firm create room for adding customer value chain, developing new products and expanding new market places (Lin & Wu, 2014).

Sitzmann and Bell (2017) researched on the dynamic effects of subconscious goal pursuit on resource allocation, task performance, and goal abandonment. The study results showed that the subconscious achievement of goals contributes to promoting task performance while

subconscious under-attainment goals cause abandonment of goals and difficult conscious goals mitigate those effects depending on the level of resource allocation and timing of the target execution. The study also revealed that resources are considered to be the assets that can be applied with the main aim of managing productivity and performance and that resource allocation is majored on ensuring that the available resources are assigned in a more effective and efficient way to ensure that the organizational goals and objectives are achieved accordingly. The findings of this study further indicated that in most organizations, production requires limited specific resources of the firm and their allocation to different uses is one of the managers' most important responsibilities hence equity should be considered in all areas of the organization (Sitzmann & Bell, 2017).

Lemarleni, Ochieng, Gakobo and Mwaura (2017) researched on how resource allocation affects performance of manufacturing firms in Nairobi County. Findings suggest both positive and substantial associations exist between the predictor and dependent variables. Strongest and most favorable associations were observed between organizational culture and implementation of the strategy followed by implementation of the financial resource and strategy. Resource allocation has continued to play an important role in organizational performance hence creating need for having clearly formulated strategic plans and ways that will ensure that the allocation is achieved as expected. Effective resource allocation is believed to come up with some organizational developments that are geared towards the improved performance of the organization.

2.3.4 Operational Efficiency and Financial Performance

Operational efficiency aims to cut on the expenses, which are related to the operation of a business, or to the operation of a device, component, piece of equipment or facility. They are the cost of resources used by an organization just to maintain its existence. There is a relentless

pressure on chief executive officers of companies to generate more profit to the shareholders in terms of earnings per share. Meanwhile, ongoing economic challenges in the post-recession landscape have prompted most companies to seek various ways to trim their operating costs (Kinyua, 2016). Though profitability concerns worldwide appear to be genuine, a solution that lies in cost cutting measures is rather simplistic. This is because cost is not the only cause of loss of income Nielsen (2015). There is also concern for growth and how it can be optimized in a cost cutting scenario. Taking for instance during a retrenchment exercise, a company can easily lose skilled staff and this can itself lead to a drop-in revenue.

According to Nielsen (2015), poor expenses management is one of the contributors of poor financial performance. The operational efficiency in the Export Processing Zones companies in Kenya are normally expressed as a percentage of the profits and they are normally expected to influence the financial performance of the EPZ Company in a negative manner (Swarnapali, 2014). In the literature in financial performance, the level of operating expenses is normally looked at as a way of measuring the efficiency of a firm's management. Memmel and Raupach (2010) in their study of several European countries concluded that operating costs have a negative effect on profit measures despite their positive effect on net profit margins. Another dimension of operating costs is that the EPZ companies' expenses are considered to influence the financial performance of the company and this is supported by Rasiah (2010) whose study showed that there is a negative relationship between the financial performance of EPZ companies and the management of their expenses.

Efficiency in cost management is normally measured as a ratio (operating costs to assets). This is due to the fact that only operating expenses can be directly associated to the outcome of company management (Athanasoglou, Brissimis & Delis, 2013). This has resulted in a negative

relationship due to the fact that improved management of EPZs expenses lead to improved efficiency and thus improved financial performance. In general performance management of organizations, high cost of operations leads to lower profit margins since it means that the organization is spending more in order to get output. It is important to note that due to competition and market regulations, an Export Processing Zone Authority that is faced by high cost of operations cannot pass the whole burden to the companies through increasing the fees and charges and therefore this means that the EPZA has to shoulder it. Increased costs affect the left side of the profit and loss statement and this means that the profits realized will be lower than in a case where the costs of operations are lower. Export Processing Zones that are interested in achieving high financial performance or profitability need to develop ways of ensuring that their costs of operations are maintained at an acceptable level. EPZs that are able to minimize their costs of operations are considered to be more efficient and it is also expected that they post higher profits margins than their counterparts that have higher costs of operations (Athanasoglou, et al., 2011).

Daša (2014) aimed at broadening the understanding operational factors of small and medium businesses (SMBs) as a significant driver of economic development, as particularly related to their market performance, as well as the impact of the internal and external environment on it. The study was conducted on Croatian fast-growing SMBs. The study provided a more realistic picture of the variability of environmental factors, as well as of the variability of SMBs performance/effectiveness, as well as included the period of economic crisis, jeopardizing not only the performance, but also the very survival of businesses in general. This study confirmed that eight internal factors (business entity size, life cycle stages, technology and product innovation, organizational autonomy, centralization and formalization, market roles, and type/importance of goals) and three out of the five analyzed external factors (general state of the economy, sector, and

type of customers), depending on the period (life cycle stage and general state of the economy), exercise a more or less significant impact on the performance/effectiveness (sales growth and achievement of goals) of SMBs.

Kijjambi (2014), established the factors responsible for financial performance of domestic commercial banks in Uganda. The factors are analyzed in the light of structure–conduct performance and Efficiency hypothesizes. The study analyzed performance of all licensed domestic and foreign commercial banks independently on average basis. The study population included all licensed Domestic commercial banks in Uganda as at 31st December 2011. Data was collected from published annual financial statements for both dependent and independent variables for the study. Using Linear multiple regression analysis over the period 2000-2011, the study found that, management efficiency; asset quality; interest income; capital adequacy and inflation are factors affecting the performance of domestic commercial banks in Uganda over the period of study.

Omondi and Muturi (2013), aimed to find out the factors affecting the financial performance of listed companies at Nairobi Securities Exchange in Kenya. The study adopted an explanatory research design and 29 listed firms which have consistently been operating at the Nairobi securities exchange during the period 2006-2012 were sampled. Purposive sampling technique was used. The analysis of the secondary data collected from statements of financial position of each firm followed a number of basic statistical techniques. Descriptive statistics and inferential statistics were used to analyze data. Pearson correlation was used to ascertain the interrelationship between the variables, whereas multiple-regression was used to assess the extent of the effect of the independent variables on the dependent variable. The study provides some

precursory evidence that leverage, operational efficiency, liquidity, company size and company age play an important role in improving companies financial performance.

Mutunga, Minja and Gachanja (2014), endeavored to empirically test the effects of Innovative Adaptation and Operational Efficiency on Sustainable Competitive Advantage of Food and Beverage Firms in Kenya. This study sought to answer the following research question: What are the effects of human capital (in innovative adaptation and dynamic operational efficiency) on firms' ability to attain sustainable competitive advantage within the food and beverage companies in Kenya? This research entailed a descriptive study design. This study sought to do that among the F & B firms in Kenya. From the study, 87% of respondents indicated concurrence on usefulness of operational efficiency for sustainable competitive advantage. Kenyan firms in the food and beverage industry therefore highly regard human capital, given innovative adaptation and operational efficiency, as a major contributor to sustainable competitive advantage.

Wang and Lin (2014), study the impact of Operational Efficiency Using a Three-Stage Data Environment Analytical Model. The authors use a three-stage sequential technique to develop a Data Envelopment Analysis (DEA) model for examining a bank's technical efficiency index. Information is obtained from 34 Taiwanese commercial banks for the period from 2008 to 2011 following the global financial crisis. The Malmquist total factor productivity index is also employed to measure the impact of changes in productivity on the panel data. Empirical results derived from the DEA approach show a gain in technical efficiency and scale efficiency in the industry after adjusting the slack variables when using the corrected ordinary least squares (COLS) regression model. The results indicate that commercial banks need to diversify to increase their market share when dealing with derivatives which are associated with higher risk. The Bank's

Malmquist TFP index shows a decrease in bank productivity and improvement in pure technical efficiency.

Kisaka et al., (2014), sought to determine the X-efficiency of commercial banks in Kenya. The data was collected from 33 banks for the period 2000 to 2005. The study applied the Stochastic Econometric Cost Frontier approach which involves the estimation of the cost function and the derivation of the X-efficiency estimate based on the deviation from the efficient cost frontier. The empirical results obtained showed that X-efficiency exists in the commercial banks in Kenya and is affected by economies of scale. The persistency of X-efficiency in relation to bank size was measured to determine if inefficient banks tend to remain inefficient over time. The results indicate that the average large bank inefficiency was more persistent than the average small bank inefficiency.

Mukolwe and Wanyoike (2015), assessed logistics management practices on operational efficiency of Mumias Sugar Company Limited, Kenya. The target population for the study included staff from selected departments of Mumias Sugar Company, representatives of farmers, and officials from the Ministry of Agriculture and the Kenya Sugar board. Purposive and convenience sampling methods were used to select sample elements for interviews. Stratified sampling technique was used to select the predetermined sample size of 92. Data was analyzed using mean, standard deviation and inferentially through correlation and regression analysis. The study revealed that effective management of information flow improves the company's internal and external processes. Automation of warehousing activities greatly enhances accuracy, speed of operations and reduces wastage. Transport management and physical distribution practices on the other hand allows faster and cost effective flow of goods and raw materials thus improving operational efficiency.

2.4 Conceptual Framework

Jabareen (2019) defines conceptual framework as a network of interlinked hypotheses that together provide a comprehensive understanding of a given phenomenon or phenomena. These concepts, according to Guba and Lincoln (2014) constitute a conceptual framework that supports one another, articulates their respective phenomena, and establishes a framework-specific philosophy. The framework illustrates how variables are linked and related to each other. The variables, in this case, are the independent (explanatory) along with the dependent variable (response). Notably, an independent variable affects and determines the effect of another variable. The figurative illustration of the dependent and independent variables in this study is shown below in the conceptual framework. The framework was adapted from (Litovskaya, Izmailova & Simakov, 2019; Eberhard, Gratwick, Morella & Antmann, 2017; Thuita, 2017),

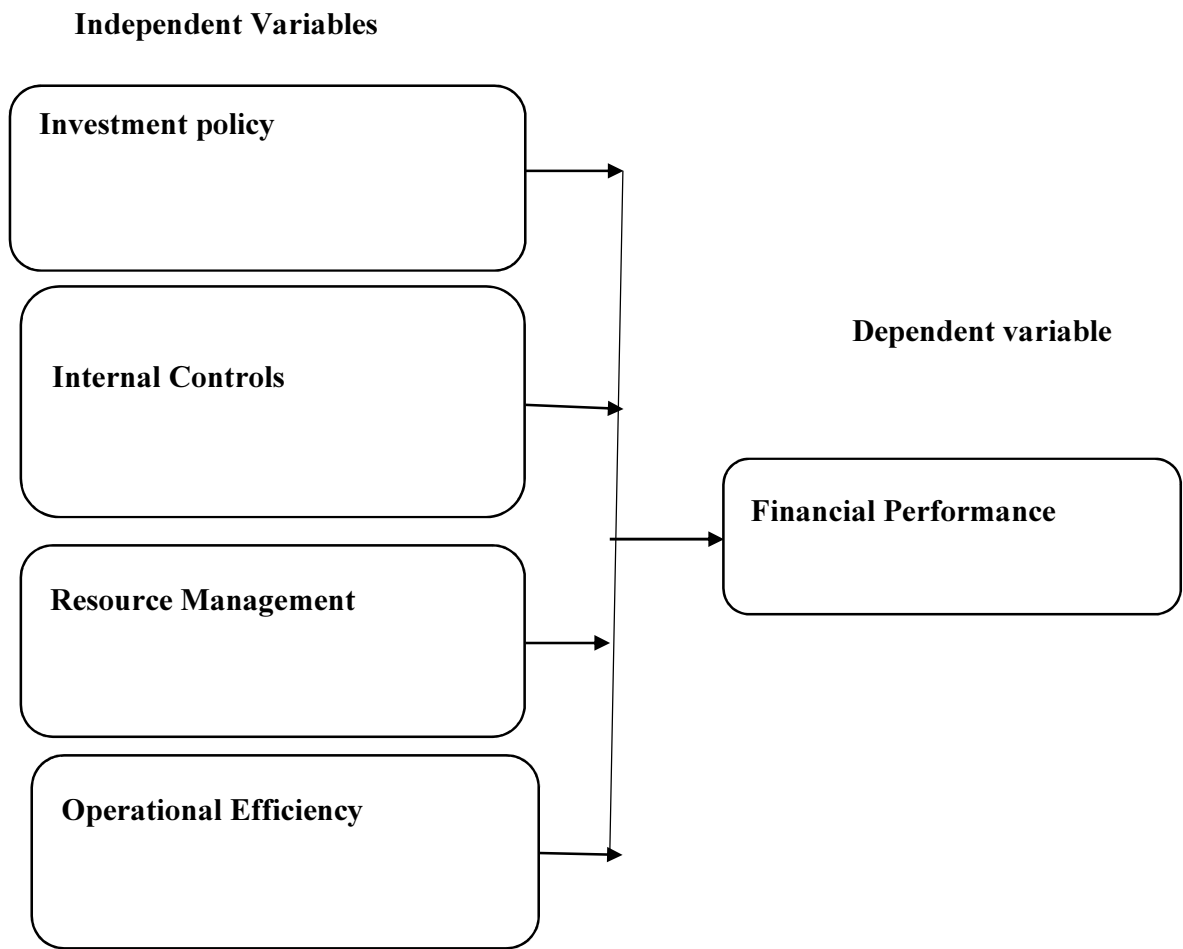


Figure 1: Conceptual Framework

2.5 Measurement of Study Variables

The measurement of the independent and the dependent variables is as shown in the operationalization Table 1

Table 1: Operationalization of Variables

| Variables | Variable Type | Measurement | Type of Scale |
|------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------|----------------------|
| Investment policy | Independent | <ul style="list-style-type: none">• Current Investment allocation/Total allocation | Ratio |
| Internal Controls | Independent | <ul style="list-style-type: none">• Internal control index | Ratio |
| Resource Management | Independent | <ul style="list-style-type: none">• Resource Cost Variance | Ratio |
| Operational efficiency | Independent | <ul style="list-style-type: none">• Operating expenses /Total output | Ratio |
| Financial Performance | Dependent | <ul style="list-style-type: none">• Return on Investment (RO1) =Investment return/Total Investment | Ratio |

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets to discuss the methodology to be adopted by the researcher attempting to answer the research queries. Specifically, the chapter includes research design, target population, and data collection. Additionally, the chapter presents the data analysis techniques to be adopted and diagnostic tests to be performed.

3.2 Research Design

The study adopted descriptive research design approach. Mugenda and Mugenda (2003) assert that descriptive research design is applicable majorly when the objectives of the study are systematic. The design further aims at exploring the nature of the factors that are involved in a given situation and to ascertain the degree of the association between the variables under study. This research design is preferred for this study because the research seeks to study the existing phenomenon of the variables with no intention of manipulating any variable.

3.3 Target Population

A population refers to an entire group of individuals, units, events or objects in the universe of interest for a particular study having a common observable attributes or characteristics. The target population of the study was the 73 EPZ companies in Athi River, Kenya (Appendix II).
Source <https://epzakenya.com/>

3.4 Sample and Sampling Techniques

Sampling is a process which enables a researcher to gather a few things or people together that represent the characters of the whole population under study. (Blumberg, Cooper & Schindler,

2014). According to McMillan and Schumacher (2014), census is a study where all members, objects or things in the population take part in the research. Census technique is suitable when the levels of accuracy and reliability required in the study are very high. Additionally, census is preferred when the members of the population are few. This research used census technique where 73 EPZ firms was used as the sample size.

3.5 Data Collection

The research adopted the use of secondary data. The data was obtained from the EPZ companies in Athi River. Panel data analysis was used. Gujarati (2004) considers panel data to be desirable because it incorporates more information in the model, that is, it combines variability across time and cross-section units. Data was covering 5 years from 2015 to 2020 so as to provide more observations and also enable a panel data analysis under the 73 companies. The data was also readily available from 2015. (EPZ, 2020).

3.6 Diagnostic Tests

The study conducted Multicollinearity, Heteroscedasticity, Normality test, Autocorrelation Test and Durbin – Wu –Hausman Test. The diagnostics was conducted so as to avoid doing regression analysis with spurious results.

3.6.1 Multicollinearity

Multicollinearity is the condition in which there is a high degree of association between independent variables and dependent variable. Multicollinearity was tested using variance inflation factor VIF. Multicollinearity was found present if VIF value is above 10. This is according to Bryman and Bell (2013) who indicated that where $VIF \geq 10$ indicate presence of

Multi-collinearity. Where the values are above 10, multicollinearity was corrected by removing the highly correlated independent variables.

3.6.2 Heteroscedasticity

According to Williams (2016), heteroscedasticity gives equal weight to all observations and causes the standard errors to be discriminated and consequently results in an incorrect conclusion when testing the hypothesis. Breusch-Pagan was used to check for existence of heteroscedasticity in the data collected. The hypothesis was that the data is homoscedastic and was tested at 0.05 significance level. If the p-value is larger than the critical 0.05, then we conclude that the data does not suffer from heteroscedasticity.

3.6.3 Normality test

The assumption of normality enables one to make accurate statistical inferences from test of hypothesis (Field, 2009). This study used the Jarque-Bera test statistic (Bera & Jarque, 1982) to test for the normality of the residuals. The hypothesis was that the data is normal. If the p-value was above the critical 0.05, then we conclude that the data is normally distributed.

3.6.4 Autocorrelation Test

Autocorrelation occurs when data seem to pick up on a certain trend over time. The data, in this case, produce some similarities in the rates of change over successive periods of time. Models with autocorrelation suggest that they are well defined which suggests that the key variable(s) are missing from the model. Autocorrelation Test was conducted to determine if the data contravenes the attributes of the Ordinary Least Square (OLS), which culminates to wrong outcomes in hypothesis testing. The study used Wooldridge test to ascertain whether the data collected has a serial autocorrelation.

3.6.5 Durbin – Wu –Hausman Test

Also known as the Hausman specification test, the test is carried out to check for consistency of the estimator when compared to an alternative and less efficient estimator. Green (2008) opines that for one to decide between random effects and fixed effects, it is important to run a Hausman specification test whereby the null hypothesis is the random effects. Durbin – Wu –Hausman Test, was conducted to test on the data to determine the most appropriate estimation model between the random effects and the fixed effects.

3.7 Data Analysis

Etikan Musa and Alkassim (2016) define data analysis as a process that reviews, converts and displays data to bring forth important information, and suggest conclusions to the researcher for purposes of decision making. Brooks (2008) asserts that panel data regression is preferred in conditions where the data at hand comprises both time series and cross-sectional components. This is because panel data can address a wider range of issues and more sophisticated problems than the classic cross-sectional data or the perfect time-series. Gujarat (2004) considers panel data to be desirable because it incorporates more information in the model, that is, it combines variability across time and cross-section units.

Subsequently, this research model is focused on panel data approach where the cross-sectional component is reflected by the commercial banks while the time-series component is reflected by the period of study (2010-2019). The study utilized a panel regression model using STATA software. The study adopted the use of panel regression analytical model as shown;

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon_{it}$$

Where;

Y= Financial Performance

X₁ = investment policies

X₂ = Internal controls

X₃ = Resource management

X₄ = Operational efficiency

β_0 = Constant term

$\beta_1, \beta_2, \beta_3, \beta_4$ = Beta coefficients of the independent variables

ε = Error term (Margin of error)

i = EPZ company

t = the index of time period.

R-Square (Coefficient of Determination)

This is a measure of the percentage of variation in the dependent variable that is explained by the independent variable. It is a goodness-of-fit measure that indicates how well the predicted values of the dependent variable (y) (based on the chosen independent variable-x), matches the actual observations (Y).It is a test of the overall explanatory power of the entire regression. Generally, an R² of 0.30 or 30% and above passes the goodness-of-fit test.Coefficient of determination is determined as follows:

$$R^2 = \left\{ 1 - \left(\frac{\sum (Y - Y_e)^2}{\sum (Y - \bar{Y})^2} \right) \right\}$$

Where:

Y - Actual observations of the dependent variable

Y_e – estimated values based on the regression equation

\bar{Y} - Mean value of the actual observations of the dependent variable.

Standard Error of Estimate (S_e)

Standard Error of Estimate (S_e) was used to measure of variability around the regression line. It helps in determining the range of values of the dependent variable y within which one may have some degree of confidence that the true values lie. The standard error of estimate can be determined as follows:

$$S_e = \sqrt{\frac{\sum (y - y_e)^2}{n - k}}$$

Where:

n is the number of observations

k is the number of estimated parameters in the regression equation i.e., a , and b .

In a simple regression, two parameters a and b are estimated and the value of $k = 2$ so that the degrees of freedom is $(n-2)$

Standard Error of Coefficient (S_b)

This is a measure of reliability of the estimate of the regression coefficient b (i.e., the rate of change) as opposed to the standard error of estimate which measures the reliability of the total function. It focuses on the rate of variability rather than on absolute levels of the prediction. It is determined as follows:

$$S_b = \frac{S_e}{\sqrt{\sum (X - \bar{X})^2}}$$

S_b can be used to construct confidence intervals about the predicted values of the coefficient.

t-test (Significance of independent variable)

This test is performed by comparing the critical t-values from the t-table with the regression values of the t-statistic.

F Test

The F-test was used to test the overall explanatory power of the entire regression. It uses the F statistic or F ratio to test the hypothesis that the variations in the independent variables, (i.e., the X's) explain a significant proportion of the variation in the dependent variable (Y). Thus, one can use the F statistic to test the null hypothesis (H₀) that all the regression coefficients are equal to zero against the alternative hypothesis (H₁) that they are not all equal to zero. The value of the F statistic is given by:

$$F = \frac{\text{Explained variation}/(k-1)}{\text{Unexplained variation}/(n-k)}$$

This can also be written as follows:

$$F = \frac{R^2 / (k - 1)}{(1 - R^2) / (n - k)}$$

Where:

n- Number of observations

k- Number of estimated parameters or coefficients

It can be seen the F statistic is a ratio of two variances, explained variation and unexplained variation. To conduct F test, we compare the calculated (regression value) of the F statistic with the critical value from the F distribution table. If the calculated value exceeds the table value or critical value, then the null hypothesis (that there is no statistically significant relationship between the independent variables and the dependent variable) is rejected (i.e., accept the alternative hypothesis that not all coefficients are equal to zero).

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This section presented the findings from the results and their analyses as to their relevance to the objectives and hypotheses. The findings are presented in tables and narrations as per the specific objectives. In addition we have presented the descriptive statistics, and the diagnostic tests. The chapter further presented the results of the models that was adopted in order to achieve the study's objective.

The data was obtained from the financial statements of the EPZ companies at Athi River EPZ. The data was also checked for completeness and any outliers from excel before importing to STATA where it was set to panel balanced data. As per the operationalization of our study variables, Investment policy was obtained from the Current Investment allocation to Total allocation. Internal Controls index was obtained from the Internal control index. Resource Management was obtained from the Resource Cost Variance. while Operational efficiency was obtained from the Operating expenses to Total output. Lastly, financial performance (ROI) was obtained from investment return divided by total investment.

4.2 Descriptive Statistics

The descriptive statistics shows the mean, standard deviation, minimum and maximum values of the variables financial performance (Return on Investments), Investment policy, Internal Control, Resource Management and Operational Efficiency for the EPZ companies for period 2015-2020. The results are depicted in percentages and are presented in Table 2.

Table 2: Descriptive Statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|------------------------|------------|-------------|------------------|------------|------------|
| Investment policy | 438 | 0.455 | 0.119 | 0.211 | 0.599 |
| Internal Control | 438 | 0.456 | 0.122 | 0.200 | 0.698 |
| Resource Management | 438 | 0.559 | 0.124 | 0.203 | 0.786 |
| Operational Efficiency | 438 | 0.656 | 0.115 | 0.442 | 0.810 |
| Return on Investments | 438 | 0.033 | 0.012 | 0.0091 | 0.051 |

The investment policy depicted by the Current Investment allocation to Total allocation ratio had a mean of 0.455 and a standard deviation of 0.119. The minimum ratio was 0.201 and the maximum of 0.599. The Current Investment allocation ratio mean of 0.455 implied that most of the EPZ companies had an appetite in investing in the EPZ for their returns. This is also depicted by the maximum of 0.599 out of a 1.0 implying that EPZ companies had more than half of their investments under current allocation. This could be enhanced by the incentives provided in the EPZ zones such as tax incentives, lower land rentals, exemption of import, export and value-added taxes and reduced regulatory oversight in administrative and customs procedures. The Internal control index had a mean of 0.456 and a standard deviation of 0.122. The minimum ratio was 0.200 and the maximum of 0.698. The Internal control mean of 0.456 implied that the EPZ companies had made attempt to enhance Internal controls which entails the mechanisms, rules, and procedures implemented to ensure the integrity of financial and accounting information, promote accountability, and prevent fraud. However, the maximum of 0.200 implied that there were firm(s) that had low levels of internal controls.

Resource Management had a mean of 0.786 and a standard deviation of 0.124. The minimum ratio was 0.203 and the maximum of 0.686. The Resource Management mean of 0.786 implied that the EPZ companies utilized most of their resources such as inventory, human skills, production resources, or information technology to enhance output. However, the maximum of 0.203 implied that there were firm(s) that had low utilization of their resources. Operational Efficiency had a mean of 0.656 and a standard deviation of 0.115. The minimum ratio was 0.442 and the maximum of 0.810. The Operational Efficiency depicted by the mean of 0.656 implied that the EPZ companies operating expenses compared to the total output was favorably minimal.

Lastly, the financial performance of the EPZ companies under return on investments had a mean of 0.033 and a standard deviation of 0.012. The minimum ratio was 0.0091 and the maximum of 0.051. The mean of 0.033 implied that the EPZ companies were able to make returns from their investments however the ratio in percentage was low at 3.3% out of 100%. The minimum of 0.0091 implied that some companies were struggling to attain a return from their investments since the return was below 1% out of a possible 100% considering a desired 5% return rate. However, the maximum of 5.1% implied that some companies were able to make a good return from their investments.

4.3 Trend Analysis

This section presents the analysis of the trends of the variables. The study conducted a trend analysis to establish the movement of the variables overtime for the period 2014-2019.

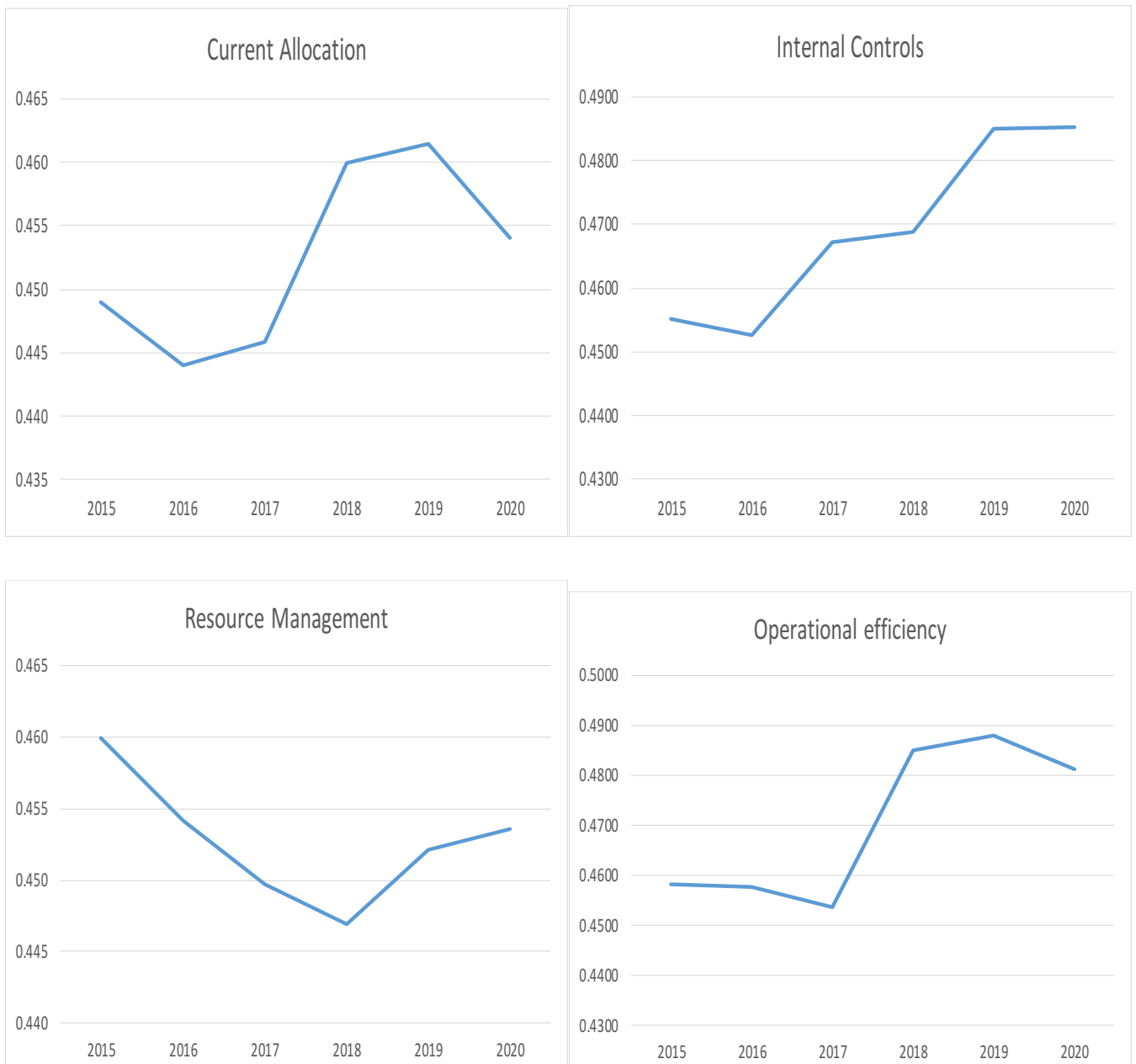


Figure 2: Trend Analysis

The trend line in Figure 2 shows that current investment allocation to Total allocation for the EPZ firms recorded a drop in current allocation from 2015 to 2016. However, there was an increase in current allocation to investments from 2017 upto 2019 where a slight drop was recorded

towards 2020. The trend line for internal controls indicated a general increasing trend. From the lowest rate in 2015, the trend rose all the way to 2019 with a slight stagnation in 2020. The trend line for resource management indicated a decreasing trend from 2015 to 2018. However, the trend rose towards the year 2020 indicating improved use of resources to increase output. Lastly, the operational efficiency had a slight drop from 2015 to 2017. However, the operational efficiency rose steadily until 2019 where a slight drop was recorded towards 2020.

4.4 Diagnostics

The study conducted out different diagnostic tests to make sure that the postulations of Classical Linear Regression Model (CLRM) are not contravened. The pre-estimation tests conducted in this case were the Normality test, Multicollinearity, Test for Fixed or Random Effects, Wooldridge Test for Serial Correlation and Heteroscedasticity Test. The study performed these tests to avoid spurious regression results.

4.4.1 Test for Multicollinearity

Multicollinearity was assessed in this study using the variance inflation factors (VIF). According to Field (2009) VIF values in excess of 10 is an indication of the presence of Multicollinearity. The results are illustrated in Table 3.

Table 3: Multicollinearity

| Variable | VIF | 1/VIF |
|------------------------|------------|--------------|
| Investment policy | 1.710 | 0.584 |
| Internal Control | 1.530 | 0.653 |
| Resource Management | 1.260 | 0.796 |
| Operational Efficiency | 1.090 | 0.916 |
| Mean VIF | 1.400 | |

As shown in Table 3, Investment policy had a VIF value of 1.710, Internal Control had a VIF value of 1.530, Resource Management a VIF value of 1.260, Operational Efficiency had a VIF value 1.090. Therefore, the results revealed that there was no multicollinearity since all the values for VIF were less than 10.

4.4.2 Test for Autocorrelation

Autocorrelation Test was conducted to determine if the data contravenes the attributes of the Ordinary Least Square (OLS), which culminates to wrong outcomes in hypothesis testing. The study used Wooldridge Test for Serial Correlation to ascertain whether the data collected has a serial autocorrelation.

Table 4: Serial Correlation Tests

| |
|----------------------------------------------------------|
| Wooldridge test for autocorrelation in panel data |
| H₀: no first-order autocorrelation |
| F(1, 4) = 3.202 |
| Prob > F = 0.2140 |

The results for the Wooldridge test for autocorrelation indicated that the F-test value was 3.202 and the P-value was 0.2140 indicating that the F-test is not statistically significant at 5%

level. Hence, the null hypothesis of no autocorrelation was supported and the study concluded that residuals are not auto correlated.

4.4.3 Normality Test

To test for normality, the study applied the Jaque Bera test method. The Jarque–Bera test is a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal distribution. Normality was checked on the residuals of a model, because those assumptions apply to the unexplained variance of a model. The hypothesis was that the data was normally distributed. The results are as shown in Table 5.

Table 5: Normality Test

| .jb residuals | | |
|---------------|------------------------------|-------|
| Jarque-Bera | normality test: 10.02 Chi(2) | 0.076 |
| Jarque-Bera | test for Ho: normality: | |

The results in Table 5 indicated that the Chi-square value was 10.02 and the P-value was 0.076 which was larger than the 0.05. We thus concluded that the data was normal since the p-value was larger than the critical 0.05.

4.4.4 Heteroscedasticity Test

In regression models, the error term difference or variance is assumed to be constant across observations. If this assumption is violated, the random variable is called heteroscedastic. If the control model is heteroscedasticity, then the analysis is not correct. This study used Breusch-Pagan test to check for existence of heteroscedasticity in the data collected with the hypothesis that the data was homoscedastic.

Table 6: Heteroscedasticity Test Results

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity
Ho: Constant variance
Variables: fitted values of ROI
chi2(1) = 12.31
Prob > chi2 = 0.072

The hypothesis was therefore not rejected at a critical p value of 0.05 since the reported value for the chi2 (1) was 12.31 with a p-value of 0.072 which was larger than the critical 0.05. Thus, the data did not suffer from statistically significant heteroscedasticity.

4.4.5 Hausman Specifications Test

The Hausman specification test, was carried out to check for consistency of the estimator when compared to an alternative and less efficient estimator. Green (2008) opines that for one to decide between random effects and fixed effects, it was important to run a Hausman specification test whereby the null hypothesis is the random effects. Durbin – Wu –Hausman Test, was conducted to test on the data to determine the most appropriate estimation model between the random effects and the fixed effects models. The hypothesis was that random effect is preferred to fixed effect and the results are as shown in Table 7.

Table 7: Hausman Test

| | (b) | (B) | (b-B) | sqrt(diag(V_b-V_B)) |
|------------------------|--------------|---------------|-------------------|----------------------------|
| | fixed | random | Difference | S.E. |
| Investment policy | -0.012 | -0.087 | 0.075 | 0.055 |
| Internal Control | 0.068 | 0.044 | 0.024 | 0.033 |
| Resource Management | 0.047 | -0.026 | 0.073 | 0.095 |
| Operational Efficiency | 0.100 | 0.041 | 0.059 | 0.057 |
| chi2(4) | 1.32 | | | |
| Prob>chi2 | 0.076 | | | |

The Hausman test revealed a chi-square of 1.32 with a p-value of 0.076 indicating that at 5 percent level, the chi-square value obtained is statistically insignificant. Thus, the researcher did not reject the hypothesis that random effects model is preferred to fixed effect model and random model was adopted.

4.5 Correlation Analysis

The study conducted correlation analysis for the various variables that are Investment policy, Internal Control, Resource Management and Operational Efficiency on investments for the financial performance of the Export Processing Zones companies in Kenya in order to examine the nature of the statistical relationships between each pair of variables. Table 8 shows the correlation matrix of all the variables included in the study.

Table 8: Correlation Matrix

| | Financial Performance | Investment policy | Internal Control | Resource Management | Operational Efficiency |
|---------------------------|----------------------------------|------------------------------|-----------------------------|--------------------------------|-----------------------------------|
| Financial Performance | 1.000 | | | | |
| Investment policy | 0.299 0.000 | 1.000 | | | |
| Internal Control | 0.426 0.000 | 0.125 0.009 | 1.000 | | |
| Resource Management | 0.586 0.000 | 0.230 0.000 | 0.343 0.000 | 1.000 | |
| Operational Efficiency | 0.732 0.000 | 0.277 0.000 | 0.438 0.000 | 0.576 0.000 | 1.000 |

The results in Table 8 show that Investment policy ($r= 0.299$, $p=0.00$) had a positive and significant relationship on financial performance of the Export Processing Zones companies in Kenya. Internal Control ($r=0.426$, $p=0.000$) had a positive and a significance relationship on financial performance of the Export Processing Zones companies in Kenya. Resource Management ($r= 0.586$, $p= 0.000$) had a positive and significance relationship on financial performance of the Export Processing Zones companies in Kenya. Lastly, Operational Efficiency ($r=0.732$, $p=0.000$) had a positive and a significance relationship on financial performance of the Export Processing Zones companies in Kenya. This positive coefficient implied that an increase in Investment policy, Internal Control, Resource Management and Operational Efficiency led to an increase on financial performance of the Export Processing Zones companies in Kenya.

4.6 Regression Analysis

The study sought to carry out regression analysis to establish the statistical significance relationship on the determinants on financial performance of the Export Processing Zones companies in Kenya. The variables were Investment policy, Internal Control, Resource Management and Operational Efficiency on financial performance of the Export Processing Zones companies in Kenya. The regression includes techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent and one or more independent variables. The results are presented in Table 9.

Table 9: Regression Analysis

| Financial Performance | Coef. | Std. Err. | z | P> z |
|------------------------------|--------------|------------------|----------|-----------------|
| Investment policy | 0.0061483 | 0.0022555 | 2.73 | 0.006 |
| Internal Control | 0.0088483 | 0.002896 | 3.06 | 0.002 |
| Resource Management | 0.0218494 | 0.0037282 | 5.86 | 0.000 |
| Operational Efficiency | 0.0519626 | 0.0039069 | 13.30 | 0.000 |
| _cons | -0.009409 | 0.0016813 | -5.60 | 0.000 |
| Wald chi2(4) | 629.25 | | | |
| Prob>chi2 | 0.000 | | | |
| R squared Overall | 0.6971 | | | |

The regression equation was as shown below;

$$Y_{it} = -0.009409 + 0.0061483X_{1it} + 0.0088483X_{2it} + 0.0218494X_{3it} + 0.0519626X_{4it}$$

X_{1it} = Investment policy of Firm i at time t

X_{2it} = Internal Control of Firm i at time t

X_{3it} = Resource Management of Firm i at time t

X_{4it} = Operational Efficiency of Firm i at time t

The overall R squared of 0.6971 implied that the four variables namely Investment policy, Internal Control, Resource Management and Operational Efficiency explained 69.71% on the variations on financial performance of the Export Processing Zones companies in Kenya. The overall model was significant as indicated by the Prob>chi2 of 0.000 with a Wald chi2 (4) of

629.25. In addition, the constant of 0.009409 showed that when Investment policy, Internal Control, Resource Management and Operational Efficiency are held constant, performance will remain at 0.009409 units.

The results further portrayed a positive and significant relationship between Investment policy and financial performance of the Export Processing Zones companies in Kenya ($\beta=0.0061483$, $p=0.006$). There was a positive and significant relationship between Internal Control and financial performance of the Export Processing Zones companies in Kenya ($\beta=0.0088483$, $p=0.002$). Resource Management had a positive and significant relationship with financial performance of the Export Processing Zones companies in Kenya ($\beta=0.0218494$, $p=0.000$). Lastly, Operational Efficiency revealed a positive and significant relationship with financial performance of the Export Processing Zones companies in Kenya ($\beta=0.0519626$, $p=0.000$).

4.7 Discussion of Findings

The objective of this study was to assess the determinants of financial performance of the Export Processing Zones companies in Kenya with focus on EPZ Athi River. The variables of interest were Investment policy, Internal Control, Resource Management and Operational Efficiency on the financial performance of the Export Processing Zones. The pre-estimation tests conducted on Normality test, Multicollinearity, Test for Fixed or Random Effects, Test for Serial Correlation and Heteroscedasticity indicated that the underlying assumptions were fit for regression analysis.

The first objective of the study was to assess the effects of investment policy on financial performance of Export Processing Zones companies in Kenya. Correlation results showed that Investment policy ($r=0.299$, $p=0.00$) had a positive and significant relationship on financial performance of the Export Processing Zones companies in Kenya. Further, regression analysis

portrayed a positive and significant relationship between Investment policy and financial performance of the Export Processing Zones companies in Kenya ($\beta= 0.0061483$, $p=0.006$). This implies that a unitary increase in Investment policy led to an increase in the financial performance of the Export Processing Zones companies in Kenya by 0.0061483 units holding other factors constant.

The null hypothesis was therefore rejected that Investment policy has no statistical significance influence the financial performance of EPZ firms in Kenya. These findings are in line with Masindet, Ndambiri and Oluoch (2018) who assessed the influence of investment policies on financial performance of commercial banks listed in NSE and the findings revealed a positive and significant effect of investment policy and financial performance. The findings are also consistent with Kemboi (2010) whose study indicated a significant positive relationship between debt and investment levels in the firm. It was concluded that corporate investments in firms did not respond to market fundamentals and liquidity position. Cherkasova and Kuzmin (2018) posited that investment policies outlines the underlying philosophies and processes for the selection, monitoring and evaluation of the investment options offered by the plan in a company.

The second objective of the study was to evaluate the effects of internal controls on financial performance of Export Processing Zones companies in Kenya. Correlation results showed that Internal Control ($r=0.426$, $p=0.000$) had a positive and a significance relationship on financial performance of the Export Processing Zones companies in Kenya. Further, regression indicated that there was a positive and significant relationship between Internal Control and financial performance of the Export Processing Zones companies in Kenya ($\beta= 0.0088483$, $p= 0.002$). This implies that a unitary increase in Internal Control led to an increase in the financial

performance of the Export Processing Zones companies in Kenya by 0.0088483 units holding other factors constant.

The null hypothesis was therefore rejected that Internal Control has no statistical significance influence the financial performance of EPZ firms in Kenya. These findings are in line with Kinyua (2016) who examined the effect of internal control systems on financial performance of companies quoted in the Nairobi securities exchange and found that internal control has a significant relationship with financial performance and concluded that internal control system is a positive significant predictor of financial performance. The findings suggested that internal control systems especially risk management, corporate governance, control activity, internal control environment and internal audit function are significant areas management of companies should give great attention to in order to improve their financial performance. The findings are consistent with Nyakundi, Nyamita and Tinega, (2014) whose result revealed a significant change in the financial performance of small and medium scale enterprises which is linked to the existence of an internal control system. The study established that internal controls significantly influence the financial performance and posited that proprietors of Small and Medium scale Enterprises should be trained on the significance of internal control. Ndiwa (2014) findings indicated that there was a relationship between internal control and financial management. The findings agree with Njeri (2014) who investigated the effect of internal controls on the financial performance of manufacturing firms in Kenya and found that most of the manufacturing firms surveyed had a strong control environment which impacted positively on the financial performance of the firms. The study posited that manufacturing firms that had invested on effective internal control systems had improved financial performance as compared to those manufacturing firms that had a weak internal control system.

The third objective of the study was to establish the effects of resource management on financial performance of Export Processing Zones companies in Kenya. Correlation results showed that Resource Management ($r= 0.586$, $p= 0.000$) had a positive and significance relationship on financial performance of the Export Processing Zones companies in Kenya. Further, regression indicated that Resource Management had a positive and significant relationship with financial performance of the Export Processing Zones companies in Kenya ($\beta= 0.0218494$, $p= 0.000$). This implies that a unitary increase in resource management led to an increase in the financial performance of the Export Processing Zones companies in Kenya by 0.0218494 units holding other factors constant.

The null hypothesis was therefore rejected that resource management has no statistical significance influence the financial performance of EPZ firms in Kenya. These findings are in line with Shuja and Abbasi (2015) who examined the effect of resource management on the business continuity management practices and results indicated that resource management is an effective tool used in implementing business continuity and disaster and crisis management plans. Mobilizing organizational resources in an event of crisis, disaster or risk involves planning, attaining and arranging resources such as equipment, technical systems, workforces and their services required and needed for serving most affected or vulnerable location in order to manage a crisis or disaster and ensure smooth recovery and continuity of the business operations. The results further agree with Lemarleni, Ochieng, Gakobo and Mwaura (2017) whose research on how resource allocation affects performance of manufacturing firms and the findings indicated both positive and significant associations exist between the predictor and dependent variables. Strongest and most favorable associations were observed between organizational culture and implementation of the strategy followed by implementation of the financial resource and strategy.

The fourth objective of the study was to establish the effects of operational efficiency on financial performance of Export Processing Zones companies in Kenya. Correlation results showed that Operational Efficiency ($r=0.732$, $p=0.000$) had a positive and a significance relationship on financial performance of the Export Processing Zones companies in Kenya. Further, regression indicated that Operational Efficiency revealed a positive and significant relationship with financial performance of the Export Processing Zones companies in Kenya ($\beta=0.0519626$, $p=0.000$). This implies that a unitary increase in operational efficiency led to an increase in the financial performance of the Export Processing Zones companies in Kenya by 0.0519626 units holding other factors constant.

The null hypothesis was therefore rejected that operational efficiency has no statistical significance influence the financial performance of EPZ firms in Kenya. The findings are consistent with According to Nielsen (2015) who established that operational efficiency in the Export Processing Zones companies in Kenya are normally expressed as a percentage of the profits and they are normally expected to influence the financial performance of the EPZ Company in a negative manner. However, Memmel and Raupach (2010) in their study of several European countries concluded that operating costs have a negative effect on profit measures despite their positive effect on net profit margins. Further, Rasiah (2010) study showed that there is a negative relationship between the financial performance of EPZ companies and the management of their expenses.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study findings, its conclusions and recommendations, presented in consideration to the study objectives used to analyze the determinants of financial performance of the Export Processing Zones companies in Kenya with focus on EPZ Athi River.

5.2 Summary of Findings

5.2.1 Investment policy and Financial Performance

The first objective of the study was to assess the effects of investment policy on financial performance of Export Processing Zones companies in Kenya. The Investment policy mean of 0.455 implied that most of the EPZ companies had an appetite in investing in the EPZ for their returns. This is also depicted by the maximum of 0.599 out of a 1.0 implying that EPZ companies had more than half of their investments under current allocation. This could be enhanced by the incentives provided in the EPZ zones such as tax incentives, lower land rentals, exemption of import, export and value-added taxes and reduced regulatory oversight in administrative and customs procedures. Investment policy was found to be positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The positive coefficient for Investment policy implied that increase in the Investment policy had a increasing effect on the return on investments for the Export Processing Zones companies in Kenya.

5.2.2 Internal controls and Financial Performance

The second objective of the study was to assess the effects of internal controls on financial performance of Export Processing Zones companies in Kenya. The Internal control mean of 0.456

implied that the EPZ companies had made attempt to enhance Internal controls which entails the mechanisms, rules, and procedures implemented to ensure the integrity of financial and accounting information, promote accountability, and prevent fraud. However, the maximum of 0.200 implied that there were firm(s) that had low levels of internal controls. Internal controls was found to be positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The positive coefficient for internal controls implied that increase in the internal controls had a increasing effect on the return on investments for the Export Processing Zones companies in Kenya.

5.2.3 Resource Management and Financial Performance

The third objective of the study was to assess the effects of Resource Management on financial performance of Export Processing Zones companies in Kenya. The Resource Management mean of 0.786 implied that the EPZ companies utilized most of their resources such as inventory, human skills, production resources, or information technology to enhance output. However, the maximum of 0.203 implied that there were firm(s) that had low utilization of their resources. Resource Management was found to be positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The positive coefficient for Resource Management implied that increase in the Resource Management had a increasing effect on the return on investments for the Export Processing Zones companies in Kenya.

5.2.4 Operational Efficiency and Financial Performance

The fourth objective of the study was to assess the effects of Operational Efficiency on financial performance of Export Processing Zones companies in Kenya. The Operational Efficiency depicted by the mean of 0.656 implied that the EPZ companies operating expenses compared to the total output was favoruably minimal. Operational Efficiency was found to be

positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The positive coefficient for Operational Efficiency implied that increase in the Operational Efficiency had a increasing effect on the return on investments for the Export Processing Zones companies in Kenya.

5.3 Conclusion

The study concluded that the determinants affected financial performance of the Export Processing Zones companies in Kenya in a positive and significant way. Each of the specific conclusions is as discussed;

Investment policy was found to be positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The positive coefficient for Investment policy implied that increase in the Investment policy had a increasing effect on the return on investments for the Export Processing Zones companies in Kenya. Internal controls was found to be positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The positive coefficient for internal controls implied that increase in the internal controls had a increasing effect on the return on investments for the Export Processing Zones companies in Kenya.

Resource Management was found to be positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The positive coefficient for Resource Management implied that increase in the Resource Management had a increasing effect on the return on investments for the Export Processing Zones companies in Kenya. Operational Efficiency was found to be positively and significantly related to financial performance of the Export Processing Zones companies in Kenya. The positive coefficient for Operational Efficiency

implied that increase in the Operational Efficiency had a increasing effect on the return on investments for the Export Processing Zones companies in Kenya.

5.4 Recommendation

Based on the findings of this study, the following recommendations arise;

5.4.1 Investment policy and Financial Performance

Based on the strong positive relationship on investment policy on financial performance of Export Processing Zones companies in Kenya which is seen by and regression analysis, the study recommends that the EPZ firms should consider having more current allocation on investements given the EPZ incetives provided in the EPZ zones such as ax incentives, lower land rentals, exemption of import, export and value-added taxes and reduced regulatory oversight in administrative and customs procedures.

5.4.2 Internal controls and Financial Performance

This study recommends that Export Processing Zones companies in Kenya should develop internal control systems that are in line with their financial performance of the organization. Internal controls will help the organization the organization in tracking its business performance including profitability, control and effectiveness of the entire organization as a whole.

5.4.3 Resource Management and Financial Performance

The study has revealed that Resource Management are instrumental in enhancing the firm financial performance. The study recommend sthat the EPZ firms should work to reduce their resource cost variance by to mainatain optimal use of their resources. Proper management of resources will take into the long term prospective, so that the resources will last for generations to come. It will ensure that the resources are not exploited for short term profit.

5.4.4 Operational Efficiency and Financial Performance

The study recommends that firms should strive to reduce their operating expenses and implement efficient strategies that address asset and inventory turnover. The firms can also achieve viable operational efficiency by improving their capital base, reducing their operational costs, improving their asset quality, employing revenue diversification strategies as opposed to focused strategies, and by keeping the right amount of liquid assets.

5.5 Suggestions for Further Research

The findings of this study can be improved if the study is expanded to cover a longer period. A future research can be carried out on the same topic, but using data across a longer period. This is with the assumption that the data for a longer time would provide results that are better than those provided by the data used in this study. The possible higher objectivity that arises based on the sample period may be settled covering a longer period.

In addition, given that Kenya is a key player in the East African community, the study can be expanded to cover other EPZ firms within the East African community in order to provide result that was useful in that context. A study can be done to cover all the EPZ firms in East Africa. Such a study would be used as a referential manuscript when coming up with strategic plans to professionalize the management of EPZ firms in a manner to improve their performance.

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APPENDICES

Appendix I: Introduction Letter

KCA UNIVERSITY

SCHOOL OF BUSINESS AND PUBLIC MANAGEMENT

TO WHOM IT MAY CONCERN

Dear sir/Madam

RE: HILLARY AMBAZA OBIMBO

This is to confirm that the above named is a bonafide student in the Master of Science in Commerce (Finance and Investment) degree program in this university. The student has successfully completed part 1(course work) of his degree studies and will be embarking on part 2 (research project). The student is required to submit a research project report in their area of specialization which involve going out in the field to collect data from various organizations.

Any assistance accorded to him will be highly appreciated

Coordinator

School of Business and Public Management

Appendix II: List of Athi River EPZ companies

| No | Company | Zone |
|----|-----------------------------------------|------------|
| 1 | A& I EPZ Ltd | Athi River |
| 2 | Acacia EPZ Ltd | Athi River |
| 3 | ADEC Kenya Services EPZ Ltd | Athi River |
| 4 | African Coffee Roasters EPZ Ltd | Athi River |
| 5 | Agrofirst EPZ Ltd | Athi River |
| 6 | Alborj East Africa EPZ Ltd | Athi River |
| 7 | Alltex EPZ Ltd | Athi River |
| 8 | Athi River Oils EPZ Ltd | Athi River |
| 9 | B.Braun Pharmaceuticals EPZ Ltd | Athi River |
| 10 | Blue Sky Films EPZ Ltd | Athi River |
| 11 | Botanical Extracts EPZ Ltd | Athi River |
| 12 | Capital Industrial Park EPZ Ltd | Athi River |
| 13 | Celebrity Fashions K. EPZ Ltd | Athi River |
| 14 | Ceytun EPZ Ltd | Athi River |
| 15 | China International Investments EPZ Ltd | Athi River |
| 16 | CP Power East Africa Ltd | Athi River |
| 17 | Cranfield EPZ Ltd | Athi River |
| 18 | Dala Textiles EPZ Ltd | Athi River |
| 19 | Enviro Safe Ltd | Athi River |
| 20 | Equatorial Processing Co. EPZ Ltd | Athi River |
| 21 | Ethical Fashion Artisans EPZ Ltd | Athi River |
| 22 | Eureka Nuts EPZ Ltd | Athi River |
| 23 | Ewell Oleo EPZ Ltd | Athi River |
| 24 | Fair Oils EPZ Ltd | Athi River |
| 25 | Farmica EPZ Ltd | Athi River |
| 26 | Ginger Ink Films EPZ Ltd | Athi River |
| 27 | Global Apparels (K) EPZ Ltd | Athi River |
| 28 | Growth Point EPZ Ltd | Athi River |
| 29 | Hela Intimates EPZ Ltd | Athi River |
| 30 | Hui Commercial EPZ K Ltd | Athi River |
| 31 | Insta Products EPZ Ltd | Athi River |
| 32 | Ivee Aqua EPZ Ltd | Athi River |
| 33 | Ken Meat EPZ Ltd | Athi River |
| 34 | Kenkor Joinery EPZ Ltd | Athi River |
| 35 | Kentegra Biotechnology EPZ Ltd | Athi River |
| 36 | Kikoy Mall EZ Ltd | Athi River |
| 37 | Leatherlife EPZ Ltd | Athi River |
| 38 | Life Sciences Consultants EPZ Ltd | Athi River |
| 39 | Mac Nut International EPZ Ltd | Athi River |
| 40 | Mahalakshmi Garments Kenya EPZ Ltd | Athi River |

| | | |
|----|--------------------------------------|------------|
| 41 | Meru Greens Horticulture EPZ Ltd | Athi River |
| 42 | Mes (UK) Ltd | Athi River |
| 43 | Middle East Texco EPZ Ltd | Athi River |
| 44 | Navios Services EPZ Ltd | Athi River |
| 45 | New Wide Garments K.EPZ Ltd | Athi River |
| 46 | Newland EPZ Co. Ltd | Athi River |
| 47 | Nexus Holdings EPZ Ltd | Athi River |
| 48 | Njuwa Tannery EPZ Ltd | Athi River |
| 49 | Nodor Kenya EPZ Ltd | Athi River |
| 50 | Nutro Manufacturing EPZ Ltd | Athi River |
| 51 | Omra Meat Processing EPZ Ltd | Athi River |
| 52 | Origen Group EPZ Ltd | Athi River |
| 53 | Originlike Green Biotech EPZ Ltd | Athi River |
| 54 | Property Vision EPZ Ltd | Athi River |
| 55 | Quite Bright Films Lifestyle EPZ Ltd | Athi River |
| 56 | Redington Kenya EPZ Ltd | Athi River |
| 57 | Royal Clothing EPZ Ltd | Athi River |
| 58 | Royal Garments Industries EPZ Ltd | Athi River |
| 59 | Savannah Cement Ltd | Athi River |
| 60 | SBA Kenya Export EPZ Ltd | Athi River |
| 61 | Shona EPZ Ltd | Athi River |
| 62 | Softtrace EPZ Ltd | Athi River |
| 63 | Spartan Relief EPZ Ltd | Athi River |
| 64 | Square Pharmaceuticals Kenya EPZ Ltd | Athi River |
| 65 | T3 EPZ Ltd | Athi River |
| 66 | Tensenses Africa EPZ Ltd | Athi River |
| 67 | Tracejack Industries EPZ Ltd | Athi River |
| 68 | Trans-Atlantic EPZ Ltd | Athi River |
| 69 | Transfleet EPZ Ltd | Athi River |
| 70 | Triumph Power Generating Co. Ltd | Athi River |
| 71 | Tunasco EPZ Ltd | Athi River |
| 72 | Wilde EPZ Ltd | Athi River |
| 73 | Wondernut International EPZ Ltd | Athi River |

Source: <https://epzakenya.com/>

Appendix III: Data collection Template

| EPZ Company | Year | Investment policy (Current Allocation) | Internal Controls (Internal control index) | Resource Management (Resource Cost Variance) | Operational efficiency (Operating expenses /Total output ratio) | Financial Performance (Return on Investment - ROI) |
|--------------------|-------------|-----------------------------------------------|---------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------|
| A | 2019 | | | | | |
| A | 2018 | | | | | |
| A | 2017 | | | | | |
| A | 2016 | | | | | |
| A | 2015 | | | | | |
| B | 2019 | | | | | |
| B | 2018 | | | | | |
| B | 2017 | | | | | |
| B | 2016 | | | | | |
| B | 2015 | | | | | |