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HUMAN RESOURCE COSTS AND FINANCIAL PERFORMANCE OF LISTED COMPANIES IN KENYA

Emily Orwa[1],
Margaret Omondi[2i],
Mwanidi Abdi[3],
Edward Telewa[3]
[1]Accounting Practitioner,
MBA Student,
Kaimosi Friends University,
Kenya
[2]Dean, Dr.,
Senior Lecturer,
School of Business and Economics,
Kaimosi Friends University,
Kenya
[3]Master,
Business Administration,
Kaimosi Friends University,
Kenya

Abstract:
Evaluating human resource costs is indispensable because an organization's success is largely dependent on the contributions and ability of the human resource to effectively and efficiently mobilize other resources. Human resource costs often constitute the major operational cost factor in most companies, and thus they need to be closely monitored and managed to maximize profitability. Their control is vital to ensuring the most effective and efficient use of finite resources. Despite heavy investment in human resource costs, some listed companies still face declining financial performance. The main objective of the study was to evaluate the effect of human resource costs on the financial performance of listed companies in Kenya. The specific objectives were: to establish the effect of personnel costs on the financial performance of listed companies in Kenya, to examine the effect of training and development costs on the financial performance of listed companies, and to assess the effect of employee benefit costs on the financial performance of listed companies. This study employed human capital, transaction cost, and resource-based view theories. The study was guided by positivism research philosophy. The study adopted a longitudinal research design. The target population was fifty-six listed companies in Kenya. The study employed a census. Secondary data were

[i] Correspondence: email momondi@kafu.ac.ke

collected from published audited financial statements of the listed companies in Kenya from 2017 to 2021 using a secondary data collection sheet. The study used panel data analysis with the aid of STATA to analyze data. Both descriptive and inferential statistics were obtained. Descriptive statistics comprised mean, standard deviation, minimum, and maximum values. Inferential statistics consisted of correlation analysis and a random effects model. The results indicated that personnel costs significantly and positively affected financial performance with a p-value of 0.00<0.05 and a coefficient of 0.45. Training and development costs had a significant positive effect on financial performance with a p-value of 0.00<0.05 and a coefficient of 0.31. Employee benefit cost had a significant positive effect on financial performance with a p-value of 0.00<0.05 and a coefficient of 0.19 on return on assets. The study recommended that companies should ensure adequate allocation of funds to human resource expenditure vote heads to sufficiently finance the human resource costs. The study will provide valuable information to accounting standard-setting bodies to review current accounting procedures relating to human resource costs and provide standards for valuation, capitalizing, and reporting such expenditures in the statement of financial position.

JEL: M41, J24, M12, C23

Keywords: human resource costs, financial performance, listed companies in Kenya

1. Introduction

1.1 Background of the Study

Finance managers often examine cost scenarios and create a strong cost strategy to maximize the profitability of their organizations due to the continuously rising cost of doing business for businesses worldwide. According to earlier studies, business expenditure decisions are a key indicator for predicting the company's future profitability and stock returns. Most accounting researchers have argued that operational expenditure decisions should not be made lightly because the optimality of these expenses results in the value maximization of firm returns (Aljamaan, 2017; Rafi & Hossain, 2018).

Human resource costs refer to the expenses incurred by a company for hiring, training, and managing its employees. These costs can significantly impact a company's financial performance, especially in a country like Kenya, where labor costs are relatively high. One way that human resource costs can affect financial performance is through the impact on labor productivity. If a company invests in the training and development of its employees, it can lead to increased productivity and efficiency, which can translate into higher profits. On the other hand, if a company does not invest in its employees, it may struggle with low productivity and high turnover, leading to lower profits (Akitonye, Awoniyi, & Jaeyoba, 2016).

Businesses in all industries rely on the contributions and ability of their human resources to effectively and efficiently mobilize other organizational resources. Human

resource costs (HRC) provide firms with information concerning employee expenditures. Human resource costs include expenses incurred on an organization's workforce for recruitment, salary and wages payment, training, development, medical expenditure, and retirement benefits. HRC is becoming a more important factor in both small-scale and large-scale economic success because it contributes positively to financial performance. The quality and efficiency of a company's human resources are key drivers of its financial performance. Companies that can attract and retain skilled employees at a lower cost are likely to have a competitive advantage and achieve higher financial performance (Agbiogwu, Ihendinihu, & Azubike, 2016).

Human resource costs often constitute the main cost factor in most companies, and thus their control is necessary to ensure the most effective and efficient use of finite resources. It is also crucial that all human resource costs recorded under conventional accounting practices be evaluated. Investment in human capital is the sum of a company's spending on activities that directly or indirectly improve the knowledge and abilities of its workforce. Employees' costs and worth to an organization should be calculated. The economic value of personnel and the money spent on their recruiting, training, and development are all crucial components of human resource costs (Adhikari, 2020).

Organizations today are under constant pressure to improve financial performance while ensuring that their employees have the skills and knowledge they need to succeed. For many companies, training and development costs are a significant part of their human resource costs. As such, these companies should carefully consider how these costs relate to their financial performance. Training and development costs can influence the financial performance of a company. Investing in employee training can increase productivity and efficiency, leading to cost savings and improved profitability. It can also improve employee retention and morale, leading to a more positive corporate culture and, ultimately, better financial performance (Bonsu et al., 2019).

Hiring and retaining top talent can impact financial performance. Companies often compete to attract and retain the best employees, leading to higher salary and benefits costs. In addition, companies should also consider the costs associated with employee benefits, such as healthcare and retirement plans. Human resource costs can significantly impact the financial performance of firms. Companies that invest in their employees and manage their labor costs effectively can improve productivity and profitability, while those that neglect their human resource management may struggle to achieve financial success (Adhikari, 2020).

The concept of accounting for human resources in organizations has been progressively recognized in the recent past. As a result, the human resource accounting idea is gaining active consideration through the validation and development of the concept. Companies give workforce reductions a favorable accounting treatment, treating them as a one-time operating expense and other restructuring costs, thus deducting from company earnings from revenues. This corresponds to the traditional accounting treatment of human capital in the organization, which treats all expenditures relating to human capital formation as expenses and is charged against the company's revenues in the profit and loss accounts for the current financial period. However, this

treatment of human resources as expenses is inconsistent with the treatment accorded to other resources like physical and monetary resources in the financial statements (Alekhya & Lakshmi , 2020).

Unlike traditional accounting, human resource accounting treats costs associated with human resources as assets through the measurement and valuation of human resource costs. However, these assets are not yet present in the balance sheet. The challenge of recording employees' value in the balance sheet is that they cannot be kept in one organization without the urge to transfer to another organization, unlike every tangible asset. Furthermore, it is challenging to estimate the depreciation rate of employees' value since it is difficult to predict the life span of employees in a company (Craig, et al., 2020).

This limitation of capitalizing human resource costs and recording their value as an asset in a balance sheet should be thoroughly examined. Therefore, a major concern that must be addressed prior to the issue of capitalization and the reporting strategy to be used for human resource costs is determining whether there is a causal relationship between human resource costs and firms' financial performance.

1.1.1 Global Perspective of Human Resource Costs and Financial Performance

Investing in employee training and development is a crucial step that companies take to drive productivity and profitability. Providing employees with the necessary skills and knowledge to excel in their roles, companies can improve efficiency, reduce errors and mistakes, and increase the quality of their products or services. In addition, investing in employee training and development also leads to increased job satisfaction and retention rates, as employees feel more competent and valued by the company. Companies invest in employee training and development by offering in-house training programs and workshops that focus on specific skills and areas of expertise. Companies also provide employees with access to online training resources or send them to external training programs or conferences. Investing in employee training and development improves productivity, increases profits, and creates a more positive and engaged work culture. Companies often prioritize employee training and development to stay competitive in today's business landscape (World Economic Forum, 2020)

In Turkey, a report showed that the costs organizations incur on their human resource add value to such organizations. Companies optimize their workforce by developing employees to create value and improve their financial performance. By optimizing their workforce, companies can increase efficiency and productivity, ultimately leading to increased profits and competitiveness in the market. Understanding the costs associated with human resources allows organizations to see the value in investing in their employees, as it leads to long-term profits and financial success. Investing in human resources is a worthwhile endeavour for organizations looking to improve their financial performance and succeed in the long term. The rationale behind knowing human resource costs helps show that it is worthy to invest in an organization's employees because of anticipated long-term profits and improved financial performance (Uysal, 2016).

In Malaysia, it was discovered that organizations in all sectors primarily rely on the contributions made by their human resource in terms of skills, knowledge, and experience. Human resource costs improve organizations' financial performance organizations in Malaysia. Many organizations in Malaysia believe that investing in human resource costs, such as employee benefit costs and training and development and are crucial for determining financial performance. These firms stress the need to account for the expenditures incurred on employees. According to the report, employees are important assets of organizations that need to be prioritized as they mobilize other assets (Dhar , Mutalib , & Sobhani , 2017).

In Bangladesh, a report showed that employee training and development expenditures are essential investments. According to the report, human resource development has established a considerable competitive advantage and a substantial effect on business value. The positive effect of human resource investment confirms that gradual increases in employee development can have significant beneficial trade-off effects on business financial performance. Organizations should regard human resource development expenditures as strategic investment possibilities because of the close link between human resource costs and financial success (Chowdhury, Rana, Akter, & Hoque, 2018).

Financial performance of firms can be enhanced by spending money on employee education, training, and health care benefits. Listed firms in Korea classify education, training, and welfare expenditures as capital expenditures since they influence firms' financial performance and worth. Investing in employee benefits and training can lead to increased productivity, higher levels of job satisfaction, and lower turnover rates, all of which can positively impact a company's financial performance. By investing in their employees, firms improve the quality of their workforce and increase their financial success. Employee benefits and training expenses significantly connect to firms' value and financial performance (Kwon, 2019).

1.1.2 Regional Perspective of Human Resource Costs and Financial Performance

In Nigeria, it was established that a firm's financial performance is indicative of the state of its financial output, which results from management decisions and is carried out by the staff in various departments. The ability to generate revenue and achieve financial performance is impossible without a competent and trained workforce. Human resource is too important to an organization to be treated as an afterthought; rather, they play a crucial role in coordinating the use of the organization's other resources. The expenditure on firms' human resource costs in the form of staff costs contributes to the generation of long-term value and an improvement in the firms' financial performance (Agbiogwu, Ihendinihu, & Azubike, 2016).

According to a report in Algeria, companies that spend a lot of money on training can justify their expenditures by enhancing employee and company performance. Employing training and development costs enables firms to improve staff performance and company expertise. The elements of training and development activities, such as formal training, help employees enhance their abilities and convey knowledge beyond

what is required for their current role. Consequently, investing in employees through training and development improves the financial and organizational performance of companies (Djilali & Sarra , 2017).

According to a survey in South Africa, an organization's financial performance relies on the presentation of the people that make up the firm. Workers' wages and salaries have a favorable association with the financial performance of banks. This illustrates that management must recognize and value employees' contribution to the achievement of the organizations' goals to continue improving their capacity for income production and profitability. Employee costs affect financial performance, and human resource development, training, and remuneration costs majorly contribute to a firm's financial ability (Moloi & Adelowotan, 2018).

In Ghana, a survey revealed that human resource costs and organizational success strongly interact, showing that firms that invest heavily in human resource costs perform better financially. The survey emphasized the executive compensation theory, which requires companies to design employee compensation packages that reflect the value that employees contribute to company success. In line with this thinking, income-based and share-based performance metrics should be used in determining compensation levels. Salary and bonus levels are therefore not solely based on work performed but also on the intellectual capital created by the company. In addition, firms that invest heavily in training and development achieve high profits and have significant intellectual capital performance (Onumah & Duho, 2019).

According to a report published in Tunisia, financial performance of companies is directly linked to their expenditure on human resource. The report showed that companies with higher human resource costs, specifically in terms of employee salaries and benefits, tend to have better financial performance. This is likely because investing in employees can lead to increased productivity and efficiency, ultimately resulting in higher profits. Additionally, companies with strong employee satisfaction and retention rates are likely to experience less turnover, which can save money in terms of recruitment and training costs. Companies that prioritize training and development for their employees tend to have higher levels of productivity and efficiency, leading to increased profits and financial performance. The report cited a Tunisian manufacturing company that implemented a comprehensive training program for its employees. The company saw a significant increase in productivity and a decrease in errors, resulting in cost savings and increased profits. This suggests that investing in the human resource can lead to improved financial outcomes for companies (Dhar , Mutalib , & Sobhani , 2017).

A report highlighted the importance of competitive compensation in driving financial performance in Madagascar. By offering competitive salaries and wages, companies can improve employee retention, attract top talent, and ultimately drive improved financial performance. The report showed a direct link between human resource costs such as salaries and wages and financial performance. Companies with higher salaries and wages tend to have higher financial performance, as employees who are paid well are more motivated and productive. One key factor contributing to this relationship is employee retention. Companies that offer competitive compensation

packages are more likely to retain their top talent, which leads to improved financial performance. In addition, companies that offer competitive compensation are also more attractive to potential employees, which can help them attract and retain top talent. This can also lead to improved financial performance, as employees who are highly skilled and motivated are more likely to contribute to the company's success (Sarker & Koilakos, 2021).

1.1.3 Human Resource Costs and Financial Performance in Kenya

In Kenya, as in many other countries, human resource costs are a significant part of financial performance. Largely, these costs are driven by the need to attract and retain talent in a highly competitive market. In addition, companies invest in training and development to ensure that their workforce can meet the business's demands. While there are definite challenges associated with managing human resource costs, there are also opportunities to use these costs as a source of competitive advantage. Companies that can effectively manage their human resources can create a more productive and engaged workforce, leading to improved financial performance. To effectively manage human resource costs in Kenya, companies need to clearly understand the drivers of these costs. Only then can they develop strategies to control these costs while ensuring they have the talent they need to succeed (Uysal, 2016).

Effective management of human resource and recognizing human resource costs are crucial for assessing the financial performance of companies. Employee productivity increases with increased human resource expenditures because employees are motivated. With increased productivity, financial performance is improved. Firms consider factors like safety costs, welfare costs, retraining costs, and cost of staff development when strategizing their investment in human resource costs. These factors significantly influence firms' financial performance and should therefore be considered, accounted for, and disclosed in the annual reports (Minjo, 2018).

The creation of awareness and adoption of human capital accounting tools in Kenyan firms promotes market value and improves the financial performance of firms. It helps assess human resource costs for improved decisions, enhancing Kenyan firms' market value and financial performance. Successful identification and valuation of human resource costs help organizations derive optimum competitiveness from their human resource as material investments. Consequently, with increased awareness of human capital accounting tools by human resource managers, professional accountants, financial markets, and investors, human resource accounting would be promoted to improve a firm's financial performance and market value (Lio, Mbugua, & Kalunda, 2019).

Training and development describe any initiative taken to increase the competence and understanding of current and prospective personnel. The firm's financial performance can be maintained and enhanced through training and developing a varied workforce with a wide range of talents. By allowing workers to contribute to the fullest extent of their abilities, companies may foster excellent performance in both workers and the company. Gaining superior knowledge, skills, and talents is facilitated by training

and development, which in turn boosts job productivity and employee morale. Employee performance directly impacts the business's success, making it imperative that employees have opportunities for growth and development. Improved employee performance and financial performance are the direct results of training and development programs that raise workers' levels of education, expertise, confidence, and commitment (Njue & Kiiru, 2018).

Competitive compensation is a crucial success factor in attracting, retaining, and motivating employees to improve companies' financial performance. Companies continuously make informed decisions on how to structure their employee compensation packages to enhance performance. Companies can attract and retain high-performing employees by offering competitive salaries and wages. This leads to a higher quality of work because employees are more likely to be productive and contribute to the company's success, thus improving financial performance. In addition, offering competitive salaries and wages helps build employee morale and motivation. Competitively compensated employees tend to be more productive and motivated to achieve results. This is because they feel valued and appreciated by their employers and are more likely to go the extra mile to deliver superior results. This increases productivity, resulting in higher profits (Mmbusa, 2019).

1.2 Statement of the Problem

Evaluating human resource costs is indispensable because organizations' success depends on the contributions and ability of their employees to effectively and efficiently mobilize other finite resources. Human resource costs often constitute the major operational cost factor in most companies, and thus they need to be closely monitored and managed to maximize profitability (Olajumoke , 2020). Firms consider anticipated future benefits of employees before investing in human capital development. They expect to yield high economic returns since training and development improve employee skills and knowledge, thus boosting productivity. Despite heavy investment in human resource costs, some listed companies still face declining financial performance. In 2017, Kenya Airways spent Ksh 15,448 million on employee costs and key management compensation, including salaries, wages, and other benefits. However, despite these heavy expenditures of employee costs, Kenya Airways recorded a Ksh10, 202 million loss in 2017 (Nairobi Securities Exchange, 2017). In addition, Eaagads Limited incurred Ksh10.4 million in staff costs but recorded Ksh69.9 million loss in 2020 (Capital Markets Authority, 2020). This poor performance has put some listed companies at risk of suspension, delisting on the NSE, and investor dissatisfaction. Some studies have yielded either a positive or no relationship between human resource costs and financial performance, thus conflicting results (Omodero, Alpheaus, & Ihendinihu, 2016; Ofurum & Adeola, 2018). In addition, many studies have been done in developed countries. Studies done in Kenya have focused on human resource practices and employee performance, ignoring the cost aspect of human resource. Therefore, the study sought to evaluate the effect of human resource costs on financial performance of listed companies in Kenya.

1.3 Objectives

1.3.1 General Objective

To evaluate the effect of human resource costs on the financial performance of listed companies in Kenya.

1.3.2 Specific Objectives

- To establish the effect of personnel costs on the financial performance of listed companies in Kenya.
- To examine the effect of training and development costs on the financial performance of companies listed in Kenya.
- To assess the effect of employee, benefit costs on the financial performance of listed companies in Kenya.

2. Literature Review

2.1 Theoretical Review

The study was anchored on human capital, resource-based-view, and transaction cost theories.

2.1.1 Human Capital Theory

Becker postulated the human capital theory (HCT) in 1962. The theory emphasizes the role of human resource in the organization by arguing that employees add value that significantly contributes to the firm's performance. According to this approach, an employee's talents or abilities can be developed and accumulated through training. Human capital describes the ability of individuals to produce value. The value of an individual's skills, experience, and knowledge enables a company to be productive and adaptive. Human capital, like other assets, has a monetary worth (Becker, 1962).

According to human capital theory, human beings are not just another input into the production process, but rather they are unique and irreplaceable assets that require special treatment. The theory also suggests that there are significant costs associated with acquiring and developing human capital, which must be considered when making decisions about investing in human resources. The most significant and valuable investments in human capital are education and training. Investment in employee training and education has an excellent economic return since firms benefit from the trained employees' knowledge, skills, and experience, thus boosting their productivity The theory explains the relationship between an individual's knowledge, skills, and abilities and their value in the labor market. Individuals who invest in themselves through education and training can increase their human capital, leading to higher productivity and earning potential (Becker, 2009).

The theory assumes that firms consider the anticipated future benefits of employees before deciding on the investment in human capital development. Firms, therefore, find it necessary to reflect on the return on investment on their human capital and only invest if it would significantly gain economically. Management of firms is

required to ensure that they protect the interests of the shareholders by only considering investments with future benefits and avoiding any investments without immediate or future use. The management must guide against mismanagement and loss in the organization. This can be achieved by only committing resources to human capital-related costs that guarantee a company's future benefit and not loss to the company (Samagaio & Rodrigues, 2016).

Human capital theory suggests that employees are key to an organization's ability to generate economic value. This theory can evaluate the financial impact of human resource costs on performance. For example, if an organization spends more on training and development programs, it may see a positive impact on financial performance due to the resulting increase in employee productivity. Therefore, when assessing a company's financial performance, it is important to consider its human resource costs. These costs can include training and development expenses, salaries, and benefits. Considering the human capital investments made by a company, one can better understand overall financial performance (Sharma & Khatik, 2017).

Human capital is the key driver of economic growth, and investment in human capital is essential for a company's success. The theory has been used to explain why some companies are more successful than others and how companies can increase their productivity and profitability. Human capital is the knowledge, skills, and abilities that workers possess that enable them to contribute to economic growth. Investment in human capital includes formal education, training, and on-the-job learning. The theory posits that the more educated and skilled workers are, the more productive they will be, and the more a company invests in its workers, the more productive and profitable it will be. Investment in human capital is essential for a company to be successful. A company that does not invest in its workers is likely see lower productivity and profitability over time. Therefore, making sufficient investments workers is worthwhile for companies (Salawudeen & Suleiman, 2018).

Investing in employee training and development can increase the skills and knowledge of the workforce, leading to increased efficiency and productivity. This can lead to cost savings for the company and increased revenue through increased output. Additionally, investing in employee well-being and satisfaction can lead to increased retention and reduced turnover, which can save a company the costs associated with recruiting and training new employees. Investing in employees can also lead to increased innovation and creativity within a company. When employees feel valued and supported, they are more likely to be motivated and engaged in their work, developing new ideas and problem-solving approaches. This can be especially important in today's fast-paced and highly competitive business environment, where companies must constantly adapt and innovate to stay ahead (Savitri & Syahza, 2019).

Companies with a highly skilled and educated workforce have a competitive advantage in the market. These employees can contribute more to the company's financial performance through higher productivity and innovation, leading to increased profits and shareholder value. Companies that invest in developing and training their employees see a return on this investment through increased productivity and employee

retention. This can lead to cost savings for the company as it does not have to replace employees constantly, and it can also lead to increased customer satisfaction as employees will have the skills and knowledge needed to provide high-quality service. Human capital theory emphasizes the important role individuals and their knowledge, skills, and abilities play in a company's financial performance. Companies that invest in their employees and create a supportive and empowering work environment are likely to see a positive impact on their financial performance (Onumah & Duho, 2019).

The study adopted the human capital theory and linked the theory with training and development costs and financial performance. The theory emphasizes the need to develop human capital through educating and training employees for improved performance

The theory stresses investing in human resource costs and anticipating future benefits of human resource. In the present study, the future anticipated economic use associated with an investment in human resource is improved financial performance. Therefore, increased training and development costs would be expected to boost financial performance because employee skills and experience are improved, thus increasing productivity. In this regard, to considerably achieve financial performance, training and development costs are necessary.

2.1.2 Resource-Based View Theory

Barney propounded the theory in 1991. The theory posits that a firm's resources can provide a competitive edge only if they are valuable, scarce, imperfectly imitable, and in short supply. Not all firms' resources have the capacity to enable a firm to gain a competitive edge. Competitive edge is achieved by employing a value-creating strategy that is difficult for a company's competitors to replicate and sustain and that has no easily available substitutes (Barney, 1991).

Resource-based view (RBV) theory is a strategic management framework that focuses on a firm's internal resources and capabilities as the key drivers of its competitive advantage and financial performance. According to this theory, a firm's human resources, or its employees, represent a critical resource that can be leveraged to create and sustain competitive advantage. The cost of human resources can significantly impact the firm's financial performance. Companies that invest in employee training and development may incur higher costs in the short term, but this investment can lead to higher levels of employee productivity and efficiency, resulting in improved financial performance in the long run. On the other hand, companies that neglect to invest in their employees may struggle to attract and retain top talent, leading to lower levels of productivity and potentially negative impacts on financial performance (Barney, 1991).

The key idea behind the resource-based view theory is that firms differ in the types and quality of their resources and that managers need to identify and develop their firm's unique resources and capabilities to attain a sustainable competitive advantage. The theory stresses that firms that want to foster a productive and successful workforce invest in training and developing their employees. Additionally, offering attractive salary and compensation packages is crucial for a company's ability to attract and retain top staff.

By investing in their human resource, firms can increase their financial performance and create a competitive edge (Barney, 2001).

A company's competitive advantage is its unique bundle of resources. This includes physical and human resources like skilled labor, knowledge, and know-how. The theory further suggests that these resources must be valuable that is, they must create a sustainable competitive advantage for the company and be non-substitutable. When applied to human resources, the resource-based view theory suggests that a company's competitive advantage lies in its ability to attract, develop, and retain high-quality employees. This requires a significant investment in human capital, which can be costly. However, the theory also suggests that this investment will pay off in terms of superior financial performance. Thus, companies that want to improve their financial performance should focus on investing in their human resources (Barney, 2001).

The RBV theory also stresses that an individual employee significantly contributes to achieving the organization's corporate goal. Therefore, organizations should adequately develop employees' skills, competence, and experience to achieve their corporate goals. The theory emphasizes that human resources in organizations are a critical resource and that firms can gain a competitive advantage through the effective utilization and development of their human resource. As such, firms must sustain a competitive advantage by appreciating the individual contributions of their human resources, whose value significantly influences the company's sustainable competitive advantage (Odhong & Were, 2013).

Resource-based view theory emphasizes the importance of intangible resources such as employee knowledge, skills, and expertise. These intangible resources can be difficult to quantify, but they can provide a firm with a unique competitive advantage and contribute to its financial success. Companies that have highly skilled and knowledgeable employees may be able to innovate and adapt more quickly to changing market conditions, leading to improved financial performance. Companies should prioritize developing and managing their human resources to achieve and sustain competitive advantage and financial performance. This may involve investing in employee training and development and other initiatives such as employee retention programs and performance management systems. By doing so, companies can leverage their human resources as strategic assets and create value for their shareholders (Djilali & Sarra , 2017).

Human capital is an inexhaustible resource that gives a company an edge over the competition. Companies have human resources that they can use to gain an edge in the market and ensure their continued success. Competitive advantage can be created using scarce and valuable resources. As long as the company can prevent resource imitation, transfer, or substitution, this competitive advantage can be sustained over extended periods (Hitt, Xu, & Carnes, 2016). The theory shows that valuable resources and distinctive competencies preserve an organization's competitive advantage and cannot be replaced (Dubey, Gunasekaran, Childe, & Blome, 2019).

A company's human resources are its most important asset. The costs associated with attracting, hiring, and training employees are significant, but the company's

financial performance can offset these costs. If a company can effectively manage its human resources, it can improve its financial performance. The resource-based view theory has several important implications for companies. The theory suggests that a company's competitive advantage is based on its unique resources. This means that a company should carefully manage its human resources in order to maintain its competitive advantage. A company's resources should be managed efficiently and effectively. In other words, a company cannot simply throw money at its human resources problem; it should carefully consider how to use its resources best. The theory suggests that a company should continually invest in its human resources to maintain its competitive advantage. A company that fails to invest in its human resources will eventually lose its competitive edge (Uyanto, 2020).

The theory was appropriate for the study's first objective since it identifies valuable, rare, and imperfectly imitable resources. The theory highlights the effective utilization of organizations' resources to achieve and sustain a competitive edge and increase financial performance. Offering competitive salaries and wages can attract and retain high-performing employees. This builds employee morale and motivation and leads to a higher quality of work because employees are more likely to be productive and contribute to the company's success, thus improving financial performance. Listed companies have human resources as valuable assets that they can utilize to gain a competitive advantage. Human resource costs help gain a competitive advantage and improve the financial performance of listed companies. Therefore, the resource-based view theory was used to support personnel costs.

2.1.3 Transaction Cost Theory

Oliver Williamson propounded the theory in 1975. According to Williamson, transaction costs are expenses of operating an economic business system. These costs, unlike production costs, are measured and used by decision-makers to establish the business strategy. The key claim of the theory is that transactions will be managed to minimize the costs associated with carrying them out. Transaction cost is the actual cost, including planning, choosing, and changing plans. One of the elements that comprise transaction cost includes measurement. Measurement involves computing the value of all aspects and components of a service involved in a given transaction (Williamson, 1975).

Transaction cost theory argues that individuals inside a firm are presumed to be reasonable within certain bounds. They are limited in their ability to plan and effectively forecast and plan for the possibilities that may happen, despite their best attempts to deal with the world's complexity and unpredictability. As a result, acquiring and interpreting information about the contracting environment and the firm is time and resource-intensive for an organization's human resources (Argyres & Mayer, 2007).

Transaction cost theory can be applied in assessing human resource costs. This theory posits that transaction costs are incurred when two parties engage in an exchange. Transaction costs can arise when an employer and employee negotiate wages or benefits. Human resource costs can be one of the biggest expenses for a company. They can include salaries, benefits, training, and development costs. A company needs to carefully

consider these costs when making decisions about its workforce. They need to ensure that they can attract the best employees while controlling costs. By understanding how transaction cost theory applies in this context, businesses can make more informed decisions about allocating their human resource budget to maximize financial performance (Ellram, Tate, & Billington , 2008).

Transaction cost theory (TCT) is a key theoretical framework in organizational economics. TCT analyses the costs associated with transactions and argues that these costs determine the boundaries of firms. In recent years, an increasing body of empirical research has applied TCT to studying human resource management (HRM). This research has shown that the costs of employment transactions, including recruiting, selecting, and training employees, can significantly impact firm performance. For example, if the costs of employment transactions are high, firms may be reluctant to hire new employees or invest in employee training, leading to a decline in productivity and profitability. TCT is a valuable theoretical framework for understanding the complex relationship between human resource costs and financial performance. By minimizing transaction costs and aligning their human resource practices with their business objectives, firms can improve their financial performance and achieve a competitive advantage in the marketplace (Micah, Ofurum, & Ihendinihu , 2012).

Transaction cost theory offers a useful framework for understanding the factors that influence the financial performance of companies and the role that human resource costs play in this process. According to the transaction cost theory, firms incur costs in conducting economic transactions. These costs can take various forms, including search, negotiation, and monitoring costs. Firms seek to minimize these costs to maximize efficiency and profitability. One way firms can do this is by internalizing transactions within the firm rather than outsourcing them to external parties. For example, a firm may hire its own human resources staff rather than outsource this function to a third-party provider. In human resource management, transaction cost theory suggests that companies can reduce costs by aligning their human resource practices with their business objectives. A company may invest in employee training and development to improve productivity and reduce turnover. This can be seen as an investment in human capital that has the potential to generate long-term financial benefits for the company (Edom, Inah, & Adanma, 2015).

Transaction cost theory provides valuable insights into how human resource costs can impact a company's financial performance. It can also help companies make informed decisions about managing and investing in their human resources to achieve the best possible financial outcomes. Transaction cost theory can provide insight into how different decisions about hiring and managing employees can affect a company's financial performance. For example, if a company decides to invest in extensive training for its employees, it may incur higher human resource costs in the short term, but it may also see an increase in productivity and efficiency in the long term, leading to improved financial performance. On the other hand, if a company decides to cut corners on training or employee development, it may see lower human resource costs in the short term, but

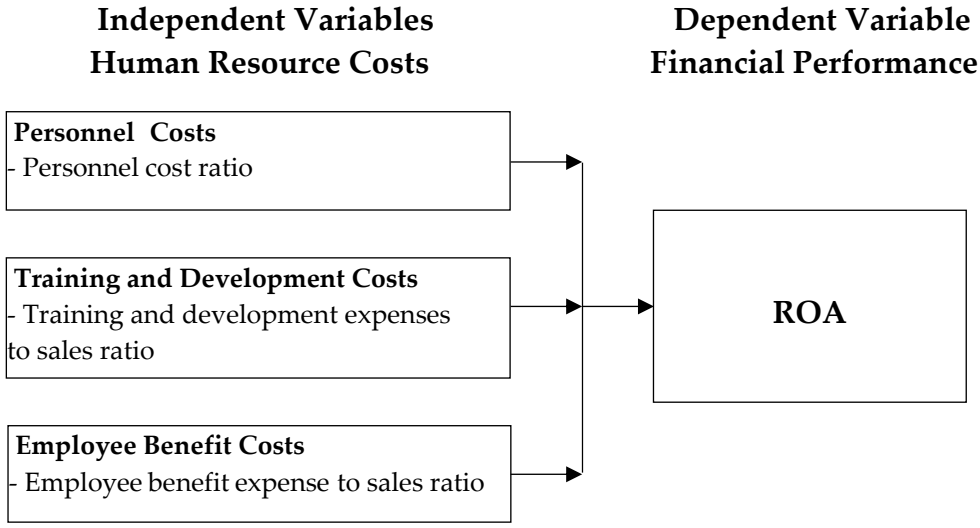
it may also see a decline in productivity and efficiency, leading to decreased financial performance (Aljamaan , 2017).

The transaction cost theory was suitable for the study's third objective as it emphasizes the common standard framework for describing the performance of companies. The theory was used to support employee benefit costs and the need to manage, control, and critically monitor employee benefit costs to achieve improved financial performance. Therefore, transaction cost theory gives a better understanding of the cost-effectiveness of rewarding employees by arguing that such an alternative helps reduce the transaction costs of acquiring employees in listed companies.

2.3 Conceptual Framework

This is a visual presentation of variables and shows the association between study variables (Hochbein & Smeaton, 2018). The independent variable in this study is the human resource costs measured by the personnel costs, training and development costs, and employee benefit costs. The independent variables were measured in terms of the specific cost-to-turnover ratio. These measures were appropriate because the employee costs-to-turnover ratio is a key performance indicator used by businesses to evaluate the efficiency of staff as a generator of income as a function of the company revenue. The ratios also normalized the data used in the study.

Figure 2.1: Conceptual Framework



Source: Researcher (2022)

2.3.1 Human Resource Costs

Human resource costs are costs that provide firms with information concerning the expenditures on employees. These include expenses incurred on an organization's workforce for recruitment, payment of salary and wages, training, development, and maintaining employees. HRC is becoming more important in both small-scale and large-scale economic success because it contributes positively to financial performance. In traditional accounting, these costs are typically treated as an expense. This means that

they are subtracted from revenue to calculate profit. However, the modern view requires that human resource costs be treated as assets by identifying their asset and expense components and recording them in the financial statements to give a true picture of firms' financial performance. This means they are recorded on the balance sheet and amortized over time. Evaluating and measuring human resource costs provides a more accurate picture of a company's true cost of doing business (Sarker & Koilakos, 2021).

2.3.2 Personnel Costs

Personnel costs are an important component of human resource costs incurred by a company to compensate its workforce. These costs are an imperative source of income for employees and define their living standards. These costs include salaries, wages, and social security benefits. Personnel costs can significantly influence a company's financial performance as they often constitute a large portion operating expenses of companies. Companies should carefully manage their personnel costs to balance attracting and retaining top talent and maintaining financial stability (Agbiogwu, Ihendinihu, & Azubike, 2016).

Companies incur personnel costs through wage and salary payments to their human resources. Salaries affect employee productivity, work efficiency, and financial performance. Thus, the quantity and remuneration methods are important both for managers and staff. It is not merely a goal to motivate employees but also to improve financial performance. By understanding these costs, businesses can make more informed decisions about how to efficiently and effectively use their human resources. Personnel costs were measured using the personnel cost ratio because the personnel cost ratio is a key performance indicator used by companies to evaluate the efficiency of staff as a generator of income as a function of the company's revenue (Craig, et al., 2020).

Personnel cost ratio is a measure of personnel costs to revenue. The personnel cost-to-sales ratio measures how much a company spends on its employees in relation to its total sales. This ratio compares the personnel costs of different companies. This ratio can be a useful measure of human resource costs for companies as it helps them understand the impact of their personnel costs on their financial performance. In addition, the personnel cost-to-sales ratio can compare a company's human resource costs to those of its competitors. This can help a company understand how it compares to its peers in terms of personnel costs and can inform decisions about managing its human resources. Personnel cost-to-sales ratio is a useful tool for companies to understand and manage their human resource costs and their impact on their financial performance. By monitoring this ratio, companies can make informed decisions about allocating their resources and optimizing their profitability (Khan, 2021).

2.3.3 Training and Development Costs

The efficient utilization of human resources leads to better organizational performance. One of the key functions of human resource management is training and development. Training and development help employees to be better equipped to perform their jobs and contribute to the organization. Training and development costs are human resource

costs that can greatly influence the financial performance of companies. These costs refer to a company's expenditures to provide its employees with the knowledge and skills necessary to perform their job duties effectively. Investing in training and development can have some benefits for a company, including increased productivity, improved customer satisfaction, and reduced employee turnover. It is important for companies to carefully consider the costs associated with training and development to ensure that it is a worthwhile investment (Craig, et al., 2020).

Training and development costs are an important part of human resource costs. Training and development costs are additional overheads companies incur to develop their employees. Training and development costs can significantly impact financial performance, as they can improve employee productivity and effectiveness. In addition, training and development can help reduce turnover and absenteeism, saving businesses money. Employees who have been properly trained are an investment and asset to any company. Training and development costs can be significant expenses for businesses. However, investing in employee training and development can pay off in the form of improved performance, increased productivity, and lower turnover. Employees are companies' greatest asset, and investing in their training and development is crucial for business growth and affects financial performance. When considering training and development costs, companies should weigh the potential benefits against the cost of the program (Adhikari, 2020).

While training and development costs may seem a large expense, companies often consider the potential benefits of investing in their employees. Training and development costs to sales ratio measures human resource costs in relation to a company's overall sales. It is calculated by dividing the total training and development costs by the company's total sales. The training and development to sales ratio was used to measure training and development costs because it indicates how much a company is investing in training and development in relation to its sales. This allows for comparisons between different companies and indicates whether a company is over- or under-investing in this area. A high training and development costs to sales ratio may indicate that a company is investing heavily in its employees and may indicate a strong focus on employee development (Kusumastuti, 2021).

2.3.4 Employee Benefit Costs

Employee benefit costs are the expenses incurred by an employer to provide employees with benefits. Employee benefits are a form of indirect compensation that employees receive in addition to their salaries. They are expenses incurred by a company in providing additional benefits to its employees beyond their regular salaries and wages. These include healthcare coverage, retirement plans, and employee incentive benefits. These costs can be high, as they can make up a significant portion of a company's human resource expenses. Companies incur human resource costs to promote economic security and stability by protecting employees against unforeseen events such as unemployment, illness, and accident. Employee benefit costs can be a significant expense for employers,

but they are also important in attracting and retaining talent (Onyinyechi & Ihendinihu , 2017).

The employee benefit costs to sales ratio is a measure of how much a company is spending on these benefits in relation to its overall sales revenue. A high ratio indicates that the company is spending a significant portion of its budget on employee benefits, potentially impacting its financial performance. Employee benefits can have a positive impact on a company's financial performance. Offering competitive benefits can help attract and retain top talent, increasing productivity and ultimately leading to increased profits. Additionally, providing benefits such as healthcare coverage can lead to healthier and more satisfied employees, which can also positively impact the company's bottom line. Ultimately, companies should carefully consider the costs and benefits of employee benefits when determining their human resource budget. Balancing the needs of the company and its employees can help to ensure that both parties are satisfied and that the company's financial performance is not negatively impacted (Sajuyigbe, Ikotun , & Obi, 2020).

2.3.5 Financial Performance

This is a measure of how well a company is doing financially. Financial performance is important to shareholders and investors because it can indicate whether or not the company is doing well. Financial performance helps assess the financial strength over a specified period and compare the performance of firms operating in a similar sector. Financial performance analysis helps identify firms' financial strengths and weaknesses by analyzing their financial statements. Evaluating human resource costs can help a company assess its financial performance over time because the management can make better decisions regarding human resource planning and the costs associated with them (Micah, Ofurum, & Ihendinihu , 2012).

Return on assets is a financial performance measure that calculates a company's profitability based on the amount of assets it has. It is calculated by dividing a company's net income by its total assets. ROA is a useful measure for investors to assess the effectiveness of a company in using its assets to generate profits. ROA is a reliable indicator of financial performance for companies because assets are a significant factor in generating profits. Return on assets is a good measure of how well a company can generate revenue in relation to those costs. Companies with higher returns on assets are usually more efficient in using human resources, and as a result, they tend to generate higher profits (Amahalu , Abiahu, Obi, & Okika , 2016).

While other measures of financial performance may be more relevant in specific situations, return on assets is generally the best measure of how well a company is doing when human resource costs are considered. This is because the return on assets takes into account both the revenue generated by a company and the costs associated with generating that revenue, including human resource costs. Return on assets is a suitable measure of financial performance when evaluating the influence of human resource costs on companies' financial performance because it considers both the company's profitability and the efficiency of its asset utilization (Oladele et al., 2018).

2.4 Empirical Literature Review

This section entails a review of studies that have been done on human resource costs and financial performance.

2.4.1 Personnel Costs and Financial Performance

Amahalu, Abiahu, Obi, and Okika (2016) studied the effect of staff cost on the return on assets of listed banks in Nigeria. This study used an ex-post-facto research design. Secondary data for the study were generated from financial statements published on the Nigeria Stock Exchange. OLS regression technique was used to analyze the research data. According to the study findings, staff costs had a positive effect on the financial performance of banks.

Ofurum and Adeola (2018) investigated the effect of staff remuneration on the profitability of quoted firms in Nigeria. The target population consisted of thirty quoted firms on Nigeria Stock Exchange. The study applied an arbitrary inspecting procedure to select a sample size of nine quoted firms. Secondary data for the study were obtained from audited financial reports of sampled companies. The analysis of data was performed using OLS regression. The study findings indicated no significant effect of staff remuneration on the profitability of quoted service firms.

Adhikari (2020) established the effect of staff costs on the operational profitability of Nepalese commercial banks. The study targeted twenty-seven commercial banks. The study used a purposive sampling technique and selected six banks. The study adopted descriptive and causal-comparative research designs. The research used secondary data acquired from the annual financial reports of the banks for the financial years 2016 to 2020. Study findings revealed that staff costs positively influence the operational profit of banks.

Ndum and Oranefo (2021) examined the effect of human resource costs on financial performance. The study was conducted on the quoted brewery firms in Nigeria. The research assessed the effect of personnel costs and reported them in the financial statements. The study population comprised five quoted brewery firms. The research employed an ex-post-facto research design. Secondary data from the five companies' published annual reports were obtained for the study. Multiple regression analysis and SPSS were used to analyze data. The findings showed that personnel costs significantly and positively affect profitability.

Onyeukwu, Ihendinihu, and Nwachukwu (2021) evaluated the effect of personnel costs on the financial performance of microfinance banks in Nigeria. The study targeted and sampled two microfinance banks listed on the Nigeria Stock Exchange. The study adopted an ex-post research design and obtained secondary data from banks' annual reports. The study used simple regression analysis to analyze data. The study findings showed that personnel costs have no significant effect on financial performance.

2.4.2 Training and Development Cost and Financial Performance

Edom, Inah, and Adanma (2015) studied the effect of staff training costs on the profitability of Access Bank PLC in Nigeria. The study adopted an exploratory research

design. The convenience sampling technique was used in the study. Secondary data were obtained from financial reports for the study period. The study analyzed data using the OLS multiple regression analytical technique. Study findings revealed a significant effect of staff training and development costs on the financial performance of Access Bank.

Salawudeen and Suleiman (2018) determined the effect of human capital accounting on the financial performance of listed consumer goods firms in Nigeria. The study's target population comprised twenty-seven companies. The study's sample size was determined using a filter to eliminate firms based on whether their published audited financial statements were filed with the NSE within the research period. The research sample size comprised eighteen companies. The study's research design was an ex-post facto research design. The study used secondary data by extracting information from accounts and annual reports of sampled companies. The study used multiple regression analysis techniques to analyze panel data. The study's findings showed that training and development costs had a significant effect on financial performance.

Vaddadi, Surarchith, and Subhashin (2018) studied the effect of human resource accounting on the financial performance of firms in India. The study specifically sought to evaluate the effect of training and development costs on a firm's financial performance. The study used ten Indian nationalized banks in Pradesh. The study used primary data collected using questionnaires. Study findings showed a strong positive effect of training and development costs on financial performance.

Obulor and Ohaka (2019) determined the effect of training costs on the financial performance of quoted manufacturing firms in Nigeria. The study used an ex-post facto research design and used panel data of the manufacturing firms. The study analyzed secondary time series financial data from twenty quoted manufacturing firms. The study used the OLS regression technique to analyze data. The findings revealed that training costs have a significant positive effect on financial performance.

Ozioma and Udeh (2021) studied the effect of staff training and development costs on the profitability of selected quoted firms on the Nigerian Stock Exchange. The study population consisted of 116 listed firms in the non-financial service sector. The study used purposive sampling and considered 76 firms whose secondary data were available. The study adopted an ex-post-facto research design and sourced the data from the accounts, annual reports, and the Nigerian Stock Exchange Fact Book 2020. Data were analyzed using regression analysis with the help of linear structural relations, and SPSS was used for preliminary analysis. Findings indicated that staff training and development costs have a significant positive effect on the profitability of quoted non-financial service firms.

2.4.3 Employee Benefits Costs and Financial Performance

Omodero, Ihendinihu, and Alpheaus (2016) studied the effects of human resource costs on the financial performance of selected listed firms in Nigeria. The study specifically determined the effect of personnel benefit costs on the financial performance of selected firms. The researchers adopted a descriptive research design. The secondary research data on turnover and personnel benefit costs were obtained from the published financial statements of the ten selected listed firms. The study used the Ordinary Least Squares

(OLS) technique and SPSS to analyze the data. The findings indicated that personnel benefit costs positively influence the profitability of the selected firms and that personnel benefit costs explained 73.9% of the firms' profit after tax.

Onyinyechi and Ihendinihu (2017) determined the effect of personnel benefit costs on the financial performance of selected listed firms in Nigeria. The study used a cross-sectional survey. Secondary data were collected from the annual reports of the sampled firms. The study used OLS with the aid of SPSS to analyze data. The study obtained inferential statistics and descriptive statistics results. The study findings showed that personnel benefit costs significantly and positively affect the financial performance of firms.

Asika, Chitom, and Chelichi (2017) studied the effect of human resource accounting on the profitability of quoted commercial banks in Nigeria. The study specifically investigated the effect of staff retirement benefit costs on organizational profitability. The target population consisted of sixteen commercial banks quoted on the NSE. The study used an ex-post facto research design. A simple sampling technique was utilized, and the study selected ten quoted commercial banks. The study findings indicated that staff retirement benefit costs had a significant positive effect on the profitability of quoted commercial banks in Nigeria.

Sajuyigbe, Ikotun, and Obi (2020) established the effect of retirement benefit costs on the financial performance of Nigerian Banks. The study used both descriptive and analytical research designs. The study targeted twenty deposit money banks in Nigeria. The research used purposive sampling to select five banks based on the human resource policy. Secondary data were generated from the annual reports of the sampled banks. The study used the OLS technique to analyze data. The study findings found that employee retirement benefit costs positively and significantly influence the profitability of the selected banks.

3. Research Methodology

3.1 Research Philosophy

This study was guided by positivism research philosophy. It argues that reality exists externally, and it is possible to know reality. Positivism holds that only information based on hard evidence, such as that collected from direct observation and quantitative analysis, is reliable and can be trusted. Positivism is considered a scientific approach in research as it focuses on measurable phenomena. When conducting positivist studies, the researcher's only responsibility is the objective collection and analysis of data. In other words, the researcher is an objective analyst who surveys while distancing herself from personal values. Thus, positivists usually use high sample sizes to create accurate, objective, and quantitative data (Hochbein & Smeaton, 2018). The study was guided by positivism research philosophy because the variables were all measurable. The study used quantitative data and quantitative analysis. Positivism research philosophy was also relevant because the study used existing theories to develop hypotheses.

3.2 Research Design

A longitudinal research design was adopted. It involves the examination of variables repeatedly over time and allows researchers to measure long-term changes in the behavior of variables. Longitudinal research design provides stronger assertions about the correlation between two variables because trends can be observed at the individual level and throughout a larger study population over an extended period. This design was useful in the present study because it allows researchers to look at variables repeatedly over an extended period (Coy, 2019). Therefore, a longitudinal research design was best suited for the study because the study evaluated the effect of human resource costs on financial performance using repeated observations of the same variables for five years.

3.3 Target Population

This is a group of objects with the same observable characteristics the researcher plans to study and generalize results to (Hochbein & Smeaton, 2018). The study's target population consisted of fifty-six (56) listed companies in Kenya which had been trading at the NSE between 2017 and 2021. However, the study only obtained full information from forty-nine listed companies in Kenya (See appendix IV).

3.4 Research Instruments

The study collected secondary data using a secondary data collection sheet (Appendix II). Secondary panel data was collected from the annual reports of listed companies in Kenya for the financial year periods covering 2017 to 2021.

3.6 Data Collection Procedure

Published audited annual financial reports for the financial years 2017 to 2021 were downloaded from the Nairobi Securities Exchange website. Data collected included total assets, net income, net sales, training and development costs, employee retirement benefit expenses, employee medical benefits expenses, salaries and wages, and social security costs of employees.

3.7 Data Processing, Analysis, and Presentation

Study data were cleaned and processed in Microsoft Excel before exporting to STATA. Both inferential and descriptive statistics were obtained. Descriptive statistics summarized the analysis of human resource costs and financial performance and comprised standard deviation, minimum and maximum values, and mean. Inferential statistics comprised correlation analysis and a random effect model

Five diagnostic tests were run to detect problems associated with model specification and determine its effectiveness. These tests include the Shapiro-Wilk test, Breusch-pagan test, multicollinearity test using variance inflation factor (VIF), Levin-Lin Chu test for stationarity, and Wooldridge test for autocorrelation. Hausman test was run to select a suitable model. The test selected the random effect model as a suitable model for the study. The study used panel data analysis with the aid of STATA. Data

presentation was done using tables. The study model was based on the regression equation below:

$$FP_{it} = \beta_0 + \beta_1 PC_{it} + \beta_2 TDC_{it} + \beta_3 EBC_{it} + e_{it} \quad 3.1$$

Where:
FP = Financial Performance,
PC = Personnel Cost,
TDC = Training and Development Cost,
EBC = Employee Benefit Cost,
β_0: constant (the dependent variable's value when all the independent variables are 0),
$\beta_1, \beta_2, \beta_3$ = Panel regression coefficients,
I = observations; 245 observations,
T = time from 2017 -2021,
e = error term.

3.9 Measurement of Variables

Table 3.1: Measurement of variables

Variable	Category	Measurement
Personnel Costs	Independent	$\frac{\text{Salaries and Wages}}{\text{Net Revenue}}$
Training and Development Costs	Independent	$\frac{\text{Training and Development Expenses}}{\text{Net Revenue}}$
Employee Benefit Costs	Independent	$\frac{\text{Employee Benefit Expenses}}{\text{Net Revenue}}$
Return on Assets	Dependent	$\frac{\text{Net Income}}{\text{Total Assets}}$

4. Research Findings and Discussions

4.1 Descriptive Statistics

The analysis of the variables was done by use of STATA for the period of five years between 2017 and 2021. The total number of observations was two hundred and forty-five because there were forty-nine companies, and the study covered a five-year period. Table 4.1 shows the summary of descriptive statistics.

Table 4.1: Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
ROA	245	2.590735	.6421624	.587645	4.70757
PC	245	2.857352	.6259858	.7781512	4.948608
TDC	245	2.667397	.7134568	.4771121	4.49693
EBC	245	2.661912	.5789302	.4771213	4.259116

From Table 4.1, financial performance measured by ROA had a mean of 2.59, with 0.64 as the standard deviation. This showed a wide variation in the financial performance of listed companies between 2017 and 2021. This was further evidenced by the minimum ROA of 0.59 and the maximum of 4.71. The wide variance of return on assets indicated that some listed companies had greater financial performance than others during the study period.

Personnel costs (PC) had a mean of 2.86 with a standard deviation of 0.63. It showed a wide variation in personnel costs across the listed companies between 2017 and 2021. Further, this wide variation was evidenced by the minimum value of personnel costs of 0. 78 and the maximum value of 4.95. The wide variance means that some listed companies pay very high salaries and wages while others pay low salaries and wages to employees.

There was a high variation in training and development costs of listed companies during the study period between 2017 and 2021, with a mean of 2.67 and 0.71 standard deviation. This wide variance was further explained by the minimum value of 0.48 and the maximum value of 4.49. The wide variance in training and development costs indicates that some listed companies in Kenya incur high expenditures in staff training and development while others spend little on employee training and development costs.

Employee benefit costs had a standard deviation of 0.58 and a mean of 2.67. This means that there was a wide variation in employee benefit costs of listed companies in Kenya during the study period. This was also explained by the minimum value of 0.78 and the maximum value of 4.26. This wide variance means that some listed companies pay high employee benefits while others pay low employee benefits.

4.2 Inferential Statistics

Inferential statistics included correlation analysis, diagnostic tests, fixed effect model, and random effects model. Hausman test determined the suitable model between fixed and random effect models. The test results indicated that the random effects model was the most suitable. Pearson correlation analysis was used to quantify the strength of association and determine the direction of the linear relationship between personnel costs and ROA, training and development costs and ROA, and employee benefit costs and ROA. Regression analysis was performed to determine the level of financial performance predicted by personnel costs, training and development costs, and employee benefit costs.

4.2.1 Correlation Analysis

This describes the association between two independent variables in a study (Gogtay & Thatte, 2017). The study adopted Pearson product-moment correlation. Pearson correlation coefficients quantify how strongly two variables are linked. The coefficients range from -1 for a negative relationship to +1 for a positive relationship. A coefficient value of zero depicts no relationship. The p-value of the correlation matrix is estimated at a significance level of 5% (Obilor & Amadi, 2018). Pearson correlation analysis was used to quantify the strength of association and determine the direction of the linear

relationship between personnel costs and ROA, training and development costs and ROA, and employee benefit costs and ROA.

Table 4.2: Correlation Analysis Results

	ROA	PC	TDC	EBC
ROA	1.0000			
PC	0.7670* 0.0000	1.0000		
TDC	0.7195* 0.0000	0.4650* 0.0000	1.000	
EBC	0.5897* 0.0000	0.3774* 0.0000	0.4747* 0.0000	1.0000

From the correlation analysis results in Table 4.2, the study found a positive association between personnel costs and financial performance (r=0.77). The p-value for this association was 0.00<0.05, indicating its statistical significance. This suggested that personnel costs had a positive and significant correlation with return on assets. These results agree with Amahalu et al. (2016), who established a positive and strong correlation between personnel costs and financial performance. Adhikari (2020) also discovered a significant positive correlation between personnel expenses and the profitability of Nepalese commercial banks; therefore, these results are consistent with that research.

The correlation analysis found a significant positive relationship between training and development costs and ROA, as supported by the *r*-value of 0.7195 and a p-value of 0.00<0.05, indicating a significant association. The results agree with Salawudeen and Suleiman (2018) that training and development costs are positively and significantly associated with financial performance. The result is also consistent with Ozioma and Udeh (2021), which established a positive association between training and development costs and the profitability of quoted non-financial service firms in Nigeria.

The correlation analysis also established a significant positive association between employee benefit costs and ROA. The results indicated a p-value of 0.00 and an *r*-value of 0.59. The results agree with Onyinyechi and Ihendinihu's (2017) findings that personnel benefit costs are significantly associated with financial performance. The findings are also consistent with the results of Sajuyibe, Ikotun, and Obi (2020), which found a positive and significant association between employee retirement benefit costs and the profitability of banks.

4.2.2 Diagnostic Tests

Diagnostic tests were done to help to identify whether there were any problems with the data that could affect the results of the analysis and to identify any potential problems with the model that could bias the results. These tests help to ensure that the results are statistically significant. Diagnostics were performed to make sure the linear regression assumptions were not violated. These comprised the multicollinearity test, heteroscedasticity test, normality test, stationarity test, and autocorrelation test.

4.2.2.1 Normality Test

The normality test is a diagnostic test to check if data have been acquired from a population that is normally distributed (Horváth, Kokoszka, & Wang, 2020). The test is used to provide evidence that the data came from a population with a normal distribution. Normality should be checked because the validity of statistical procedures like parametric tests depends on it. A normality test was done to guide the study on whether to use parametric or non-parametric tests. This test is important because parametric tests are based on the assumption of normal data distribution. Thus, if data are normally distributed, parametric tests are used, while when data are not normally distributed, non-parametric tests are used. The study employed the Shapiro-Wilk test. The null hypothesis is that data are normally distributed. Thus, if the p-value exceeds 0.05, the study fails to reject the null hypothesis. The study rejects the null hypothesis if the p-value is less than 0.05. It also requires that z-critical values be less than 1.96 and w-values be approximately 1 (Ahmad & Khan, 2015).

Table 4.3: Normality Test Results

Variable	Obs	W	v	z	Prob>z
ROA	245	0.99108	1.589	1.076	0.14101
PC	245	0.98936	1.896	1.486	0.06858
TDC	245	0.98930	1.906	1.499	0.16695
EBC	245	0.99017	1.752	1.304	0.09618

From Table 4.3, the p-values of return on assets (0.14), personnel costs (0.07), training and development costs (0.17), and employee benefit costs (0.10) were less than the 0.05 significance level. Additionally, the calculated z- value for return on assets was 1.076, personnel costs was 1.486, training and development costs was 1.499, and employee benefit costs was 1.304, which were less than the z-critical value of 1.96. Further, the w-values of return on assets, personnel costs, training and development costs, and employee benefit costs were all 0.99, close to 1. This implies that the study data were normally distributed.

4.3.2.2 Heteroscedasticity Test

Heteroscedasticity refers to a trend in a model's residuals in which the standard error of a variable is non-constant across a range of measured values (Cattaneo, Jansson, & Newey, 2018). Heteroscedasticity is a concern because it makes results obtained through significant tests inaccurate, thus invalidating them. The presence of heteroscedasticity is a concern in regression because it invalidates significance tests that assume that the model errors all have a constant variance. Homoscedasticity is a situation in which the residuals' variance is constant across all independent variables. Thus, homoscedasticity is needed to ensure that estimates are accurate. The study used the Breusch-Pagan test. The test's null hypothesis was that error terms are homoscedastic (Zambom & Kim, 2017).

Table 4.4: Heteroscedasticity Test Results

H0: Constant variance
Chi2(1) = 0.85 Prob>chi2 = 0.3571

Results in Table 4.4 show a p-value of 0.36>0.05. This suggests that there was no heteroscedasticity in the study data. Thus, the study data is homoscedastic.

4.3.2.3 Multicollinearity Test

Multicollinearity is a statistical situation that occurs when there are strong relationships between independent variables so that a change in one variable will reflect changes in the others (Senaviratna & Cooray, 2019). This can lead to problems with interpreting the regression coefficients because they are based on the notion that the predictor variables are not linearly related. Multicollinearity can also cause issues with model stability, meaning that the results of the model can change dramatically with small changes in the data.

When multicollinearity is present, it can be difficult to determine which predictor variable has the biggest impact on the dependent variable. Because of multicollinearity, an independent variable's regression coefficient loses statistical significance and makes the results less reliable. This study deployed variance inflation factors (VIF) to check multicollinearity. VIF measures the correlation between the predictor variables. The maximum acceptable value of VIF is 10. A VIF of 1 denotes no correlation between variables, which means no multicollinearity in the dataset. A VIF value of 1<VIF<10 indicates a moderate correlation. However, a VIF value of more than 10 means a high correlation between variables and indicates the presence of multicollinearity (Shrestha, 2020).

Table 4.5: Multicollinearity Test Results

Variable	VIF	1/VIF
PC	2.13	0.469399
TDC	1.83	0.545416
EBC	1.53	0.651884
Mean VIF	1.83	

From the results in Table 4.5, PC has a VIF of 2.13, TDC (1.83), and EBC (1.53). The VIF values fall within the acceptable range of below 10, which shows that the variables were moderately correlated. Thus, no multicollinearity in the dataset.

4.3.2.4 Autocorrelation Test

Autocorrelation is a statistical technique used to determine how closely two variables are related. It is often used in time series analysis to check the relationship between lagged values of a variable, and it quantifies how close the two-time series are. The lag is the time that has passed between the two-time series (Uyanto, 2020). Autocorrelation affects the standard error value of the parameter estimates, and the predictions based on the

regression model estimates will be inefficient. Autocorrelations should be removed to apply further data analysis more accurately. Wooldridge test was used to check for autocorrelation in the study panel data. This test's null hypothesis assumes no serial correlation in the study data. When the p-value of the Wooldridge test is higher than 0.05, it indicates no serial correlation; the study fails to reject the null hypothesis. However, if p<0.05, there is serial correlation, and the null hypothesis is rejected (Uyanto, 2020).

Table 4.6: Autocorrelation Test Results

Wooldridge test for Autocorrelation H0: no serial correlation
F (1,48) = 0.92 Prob>F = 0.3512

Table 4.6 shows Wooldridge test results for autocorrelation. The results indicated a p-value of 0.3512, which is greater than 0.05. It indicated that there was no serial correlation in the study data. The study failed to reject the null hypothesis.

4.3.2.5 Stationarity Test

Stationarity is a situation where time series data properties do not change over time (Jin, Wang, & Wang, 2015). Non-stationary data produces unreliable regression models that may lead to inaccurate regression estimates. A stationarity test was done to ensure that the study time series data contained no unit roots. The study used Levin-Lin Chu Test to test for unit roots. The test's null hypothesis assumes that the panel contains a unit root. The critical statistic value for the test is -1.962. When p-values are less than 0.05, it means the panel data is stationary (Bandyopadhyay & Rao, 2017).

Table 4.7: Stationarity Test Results

H0: Panels contain unit roots Ha: Panels are stationary ADF regression: 1 lag		Number of panels = 49 Number of periods = 5		
Variable	**Period**	**Panel**	**T statistic**	**P-value**
PC	5	49	-7.2354	0.0012
TDC	5	49	-2.7612	0.0000
EBC	5	49	-6.1432	0.0000
ROA	5	49	-3.5764	0.0000

The test results in Table 4.7 show the p-values were less than 0.05. Additionally, test statistic values are less than the critical value of -1.962. This denoted that personnel, training, development, and employee benefit costs were stationary. Thus, the null hypothesis of the test was rejected.

4.2.3 Fixed Effect Model

Fixed effect model is a statistical method used in research to estimate the effect of a particular variable on a dependent variable, while controlling for the effects of other variables. This model is often used when there is a large number of groups or individuals

being compared, and the researcher is interested in understanding the effect of a particular factor on the outcome of interest. In a fixed effect model, the effects of the independent variables are assumed to be constant across all groups or individuals being studied. This means that the effect of the independent variable on the dependent variable is the same for all groups or individuals, regardless of any other variables that may be present. A fixed effect model allows researchers to better control for variables that may influence the relationship between the independent and dependent variables

When looking at time series data, fixed effects analyze how one independent variable affects another dependent variable within the same entity through time. The predictor or outcome variable is expected to be subject to bias, which must be controlled when employing a fixed effect. The premise of fixed effects is that qualities that change over time are distinct from and unrelated to other features. Due to their uniqueness, error terms and constants should be treated independently (Bell & Jones, 2015).

Table 4.8: Fixed Effect Model Results

ROA	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
PC	.4348975	.063103	6.89	0.000	.3104376	.5593575
TDC	.2957823	.0501275	5.90	0.000	.1969143	.3946503
EBC	.2180945	.0765162	2.85	0.005	.0671792	.3690099
_cons	.0209344	.2423864	0.09	0.931	-.457132	.4990007
Sigma-u	.16697623					
Sigma_e	.35931471					
rho	.17759982					

Prob>F = 0.3658

4.2.4 Random Effect Model

Random effect model is a statistical approach that aims to account for differences between entities or groups within a study. The idea behind this model is that differences in outcomes across different entities should be entirely uncorrelated to the model's independent variables. Random effects rely on the idea that error terms are uncorrelated to independent variables. This is an important assumption to make because it allows researchers to more accurately estimate the relationship between the dependent and independent variables. The model assumes that any differences in outcomes are due to random factors or chance, rather than being systematically influenced by the independent variables. This is in contrast to fixed effects models, which assume that the differences in outcomes are due to the influence of the independent variables. The random effects model allows researchers to account for the inherent variability between different entities and increase the accuracy of their estimates (Huang, Lee, & Ullah, 2019).

Table 4.9: Random Effect Results

Random-effects GLS regression			Number of obs-245			
Group variable: ID			Number of groups-49			
R-sq.			Obs per group:			
within- 0.4996			min= 5			
between-0.8705			avg= 5.0			
overall-0.6865			max= 5			
			Wald chi2(3) = 504.44			
corr(u_i,x) – 0 (assumed)			Prob>chi2 - 0.0000			
ROA	**Coef.**	**Std. Err.**	**z**	**P >|z|**	**[95% Conf.**	**Interval]**
PC	.4465682	.0541125	8.25	0.000	.3405097	.5526267
TDC	.31127	.0440274	7.07	0.000	.2249779	.3975621
EBC	.1937165	.0502036	3.86	0.000	.0953193	.2921137
_cons	.0182126	.1281264	0.14	0.887	-.2329105	.2693358
Sigma-u	.05354262					
Sigma_e	.35931471					
rho	.02172258					

4.2.5 Hausman Test

Panel data analysis was used, and a fitting model had to be found for the study. The study utilized the Hausman test to select a suitable model for the study. The Hausman test examines the potential association between the regressors and individual errors. Under the null hypothesis, random effects are suitable since the unique errors are uncorrelated with the regressors, while fixed effects are more appropriate under the alternative hypothesis. If the Hausman test yields a $p<0.05$, then the fixed effect model is suitable. If $p>0.05$, the alternative hypothesis is accepted, and the random effect model is more suitable (Huang, Lee, & Ullah, 2019).

Table 4.10: Hausman Test Results

	(b) Fixed	**(B) random**	**(b-B) Difference**	**sqrt (diag(V_b-V_B)) S.E.**
PC	.4348975	.4465682	-.0116707	.0324626
TDC	.2957823	.31127	-.0154877	.0239657
EBC	.2180945	.1937165	.024378	.0577437
b = consistent under H0 and Ha; obtained from xtreg B = inconsistent under Ha, efficient under H0; obtained from xtreg Test: H0: difference in coefficients not systematic Chi2 (3) = (b-B)′ [(V_b-V_B)^ (-1)] (b-B) = 1.2 Prob>chi2= 0. 7469				

The results in Table 4.10 showed a p-value of 0.7469>0.05, thus statistically insignificant. Results suggested that the random effect was preferred. Thus, the study adopted a random effect Generalized Least Squares regression model. The following model was used;

ROA_{it}= 0.0182126+ 0.4465682PC_{it} + 0.31127TDC_{it}+ 0.1937165EBC_{it}

This equation implies that, in the absence of human resource costs, financial performance would be 0.018 units. When personnel costs increase by one unit, financial performance increases by 0.45 units. In addition, a unit increase in training and development costs consequently leads to an increase in financial performance by o.31 units. Finally, a unit increase in employee benefit costs leads to an increase in financial performance by 0.19 units.

4.3 Discussion

The random effects model was used for the study.

4.3.1 Personnel Costs and Financial Performance

The study examined the effect of personnel costs on the financial performance of listed companies in Kenya. The first null hypothesis was that there is no significant effect of personnel costs on financial performance. The correlation analysis showed that personnel costs and financial performance had a significant positive association (r = 0.77, p 0.00). This suggested a direct relationship between the companies' ROA and personnel costs. The results from the random effect GLS regression model indicated that the regression coefficient for personnel costs was 0.45 and a p-value of 0.00, suggesting a significant positive effect of personnel cost on the return on assets of companies in Kenya. The results indicate that listed companies would have a 0.45 improvement in financial performance for every unit rise in personnel costs. Thus, the study rejected the null hypothesis.

The findings of this objective concur with Ndum and Oranefo (2020). They found that personnel costs had a significant positive effect on the financial performance of quoted brewery firms in Nigeria. The findings further concur with Adhikari (2020) that staff costs had a positive effect on the profitability of Nepalese banks.

The findings of this objective are in line with the resource-based view theory, which stresses that an individual employee significantly contributes to achieving the organization's corporate goal. Resource-based view theory emphasizes that human resource is a critical resource and that companies can gain a competitive advantage through the effective utilization of human resources. Companies should appreciate the individual contributions of the human resource, whose value significantly influences companies' sustainable competitive advantage. This would be in the form of payment of favorable salaries and wages to employees to retain them in the company, boost productivity, and consequently lead to improved financial performance. This means that appreciating human resources leads to improved performance. This theory is relevant to the findings because the study established that personnel costs significantly and positively affected financial performance.

4.3.2 Training and Development Costs and Financial Performance

The study also examined the effect of training and development costs on the financial performance of listed companies. The null hypothesis for this objective was that training

and development costs have no significant effect on financial performance. The correlation analysis of training and development costs and return on assets showed an *r* of 0.72 and a p-value of 0.00. The findings demonstrated that training costs have a positive and significant correlation with financial performance. Further, the random effect regression results indicated the regression coefficient for training and development costs, *r* =0.31, with a p-value of 0.00<0.05. Training and development costs significantly affect financial performance. This means that training and development costs significantly and positively affected companies' financial performance. In other words, a 0.31 unit rise in financial performance was associated with every unit increase in training and development costs. The study rejected the null hypothesis.

The findings were consistent with those of Vaddadi, Surarchith, and Subhashin (2018), whose findings showed a positive influence of training and development costs on the financial performance of firms in India. The findings also agreed with Ozioma and Udeh's (2021) findings, which demonstrated a significant positive effect of staff training costs on the profitability of quoted non-financial service firms in Nigeria. Obulor and Ohaka (2019) also established that training cost positively and significantly affects financial performance.

The findings relate to the human capital theory assumption, which emphasizes the role of human resources in the organization by arguing that employees add value that significantly contributes to the firm's performance. According to human capital theory, an employee's talents and abilities can be developed and accumulated through education, training, and development, enabling an organization to be productive and adaptive and consequently improve financial performance. The theory also postulates that for companies to assess their human capital contributions to financial performance, training is necessary for their productivity. Therefore, the findings were in line with the assumptions of the human capital theory because the study established a positive link between training and development costs and financial performance. This supports the human capital theory's assumption that training employees improves their skills and knowledge, which leads to improved financial performance.

4.3.3 Employee Benefit Costs and Financial Performance

The study's other specific objective was to assess the effect of employee benefit costs on financial performance. The null hypothesis was that there is no significant effect of employee benefit costs on financial performance. From the random effect GLS regression results, the regression coefficient for employee benefit cost was 0.19 and a p-value of 0.00. This suggests that the effect of employee benefit cost on return on assets for listed companies in Kenya was significant. Additionally, the correlation analysis results showed a strong connection between financial performance and employee benefit expenses. The findings showed an *r* of 0.59 and a p-value of 0.00. This means that the financial performance of Kenyan-listed companies was positively and significantly affected by employee benefit expenditures. The financial performance would rise by 0.19 units for every unit increase in employee benefit costs. Thus, the study rejected the null hypothesis.

The findings are consistent with those of Omodero, Alpheaus, and Ihendinihu (2016), that personnel benefit costs had a positive effect on the financial performance of selected listed firms in Nigeria. The findings also concur with the findings of Sajuyigbe, Ikotun, and Obi (2020) that employee retirement benefit costs had a positive influence firm's profitability in Nigeria.

The findings were in line with the assumptions of transaction cost theory. The theory posits that the transaction costs, which are expenses of operating an economic business system, are measured and used by decision-makers to establish the business strategy. The theory assumes that organizations handle transactions to minimize the costs of carrying them out. This theory supported the findings of this study in that it explained the cost-effectiveness of rewarding employees, thus improving financial performance. The findings of the study supported this assumption with the positive and significant effect of employee benefit costs and financial performance.

4.3.4 Human Resource Costs and Financial Performance

The overall objective of this study was to evaluate the effect of human resource costs on financial performance. The determinants of human resource costs were personnel costs, training and development costs, and employee benefit costs. This study found that HRC positively affects the financial performance of listed companies in Kenya. Human resource costs explained 68.65% of the change in financial performance across the forty-nine listed companies in Kenya.

4.4 Hypotheses Testing

Table 4.11: Summary of Hypothesis Tests

Hypothesis	Statement	Results	Decision (Reject or Fail to Reject)
$H0_1$	There is no significant effect of personnel cost on the financial performance of listed companies in Kenya.	β=0.45 P=0.00<0.05	Reject $H0_1$
HO_2	There is no significant effect of training and development costs on the financial performance of companies listed in Kenya.	β =0.31 p=0.00<0.05	Reject HO_2
HO_3	There is no significant effect of employee benefit cost on the financial performance of listed companies in Kenya.	β=0.19 p=0.00<0.05	Reject HO_3

5. Conclusions and Recommendations

5.1 Summary of Findings

A summary of findings was done per study objective.

5.1.1 Human Resource Costs and Financial Performance

The general objective was to evaluate the effect of human resource costs on the financial performance of listed companies in Kenya. The results of random effects regression

showed an r-sq of 0.6885. This indicated that human resource costs explained 68.85% of the variation in financial performance.

5.1.2 Personnel Costs and Financial Performance

The first objective established the effect of personnel costs on the financial performance of listed companies in Kenya. The objective was based on the null hypothesis that there is no significant effect of personnel cost on financial performance. Based on Pearson correlation results, the study demonstrated a significant and strong positive correlation between financial performance as assessed by ROA and personnel costs, with r =0.77 and a p-value of 0.00. In addition, the significant positive effect of personnel costs on financial performance was also proven by the GLS random effect regression model results. The regression model coefficient was 0.45, and a significant value of 0.00<0.05 between personnel costs and ROA. This indicates that a unit increase in personnel costs would subsequently increase the financial performance by 0.45 units. Therefore, the study rejected the hypothesis.

5.1.3 Training and Development Costs and Financial Performance

The study also assessed the effect of training and development costs on the financial performance of companies listed in Kenya. For this objective, the study was based on the null hypothesis that there is no significant effect of training and development costs on the financial performance of companies listed in Kenya. Inferential statistical results revealed that training and development costs had a significant effect on financial performance. The GLS Random effect regression results indicated a positive coefficient of 0.31 and a p-value of 0.00. This finding was supported by the correlation results that demonstrated a positive correlation of r= 0.72 and a p-value of 0.00 between financial performance and training and development costs. It means that if listed companies increase their expenditures on training and developing employees, their financial performance will subsequently increase. Based on these results, training and development costs positively and significantly affect financial performance. The study's null hypothesis for the objective was rejected.

5.1.4 Employee Benefit Costs and Financial Performance

The study evaluated the effect of employee benefit costs on the financial performance of listed companies in Kenya. The null hypothesis was that there is no significant effect of employee benefit costs on financial performance. GLS random effect regression results indicated the regression coefficient for employee benefit cost as 0.19 and a p-value of 0.00. In addition, correlation analysis results showed a strong positive correlation r of 0.59 and a p-value of 0.00<0.05 between the financial performance of listed companies and employee benefit costs. These results indicate that employee benefit costs significantly positively affect financial performance. This implies that when companies increase employee benefit costs, such as retirement benefits and medical benefits, their financial performance also increases. Thus, the null hypothesis was rejected.

5.2 Conclusions

From the results of the inferential statistics, it was concluded that human resource costs significantly positively affect the financial performance of listed companies in Kenya. This section further entails conclusions based on the results of each study objective.

5.2.1 Personnel Costs and Financial Performance

The correlation analysis finding was r=0.77, p-value =0.00, and GLS Random effect regression results of β=0.45 and p=0.00, which are all positive and significant. It was therefore concluded that personnel costs have a positive and significant effect on the financial performance of listed companies in Kenya.

5.2.2 Training and Development Costs and Financial Performance

The results from correlation analysis indicated p=0.00, r=0.72, and a regression coefficient of β=0.31, p=0.00, which are all positive and significant. It was concluded that training and development costs significantly positively affect the financial performance of listed companies in Kenya.

5.2.3 Employee Benefit Costs and Financial Performance

The GLS random effects regression results indicated p=0.00 and β=0.19, and the correlation analysis results showed r=0.59, and p=0.00, which are all positive and significant. The study, therefore, concluded that employee benefit costs have a significant positive effect on the financial performance of listed companies in Kenya.

5.3 Recommendations

5.3.1 Personnel Costs and Financial Performance

Inferential statistics results showed that personnel costs significantly improve financial performance. However, descriptive statistics showed wide variability in personnel costs, evidenced by the high variance between the minimum and maximum values. Therefore, the study recommends that listed companies should strive to pay adequate salaries and wages to their employees as this will improve their financial performance. In line with the finding, firms should see human resource costs as strategic investment opportunities required to provide a competitive edge in today's business environment.

5.3.2 Training and Development Costs and Financial Performance

The inferential statistics results indicated that training and development costs significantly and positively affect financial performance. The descriptive statistics results, however, indicate wide variability in training and development costs of the companies. Therefore, the study recommends that firms should set aside adequate budget allocation funds for staff training and development costs to increase financial performance.

5.3.3 Employee Benefit Costs and Financial Performance

The study's inferential statistics revealed that employee benefit costs positively and significantly affect the financial performance of listed companies in Kenya. However, the

results of the descriptive statistics showed that there was a wide variance in employee benefit costs. This implies that some listed companies pay high employee benefits than other companies. Therefore, the study recommended that companies develop strategies to meet employee benefit expense obligations. Managers should allocate sufficient funds in employee benefits expense vote to pay their staff and ensure close monitoring of employee benefit costs.

Conflict of Interest Statement
The authors declare no conflicts of interest.

About the Authors
Emily Orwa is an Accountant.
Dr. Atieno Margaret is a Senior Lecturer and Dean of School of Business and Economics at Kaimosi Friends University, Kenya.
Mwanidi Abdi is an MBA student at Kaimosi Friends University, Kenya.
Edward Telewa is an MBA student at Kaimosi Friends University, Kenya.

References

Abiola, J. O., & Adisa, R. A. (2020). Influence of Human Resource Accounting Practices on Managerial Decision-Making. *Society for Science and Education*, 8-18. https://doi.org/10.14738/abr.85.8145

Adhikari, N. R. (2020). Training and Development Costs, Staff Costs and Operational Profitability in Nepalese Commercial Banks. *Management Dynamics*, 109-118. Retrieved from https://doi.org/10.3126/md.v23i2.35813

Agbiogwu, A. A., Ihendinihu, J. U., & Azubike, J. B. (2016). Effects of Human Resource Cost on Profitability of Banks in Nigeria. *Expert Journal of Finance*, 10-18. Retrieved from https://finance.expertjournals.com/23597712-402/

Ahmad, F., & Khan, R. S. (2015). A Power Comparison of Various Normality Tests. *Pakistan Journal of Statistics and Operation Research*, 331-345. https://doi.org/10.18187/pjsor.v11i3.845

Akitonye, I. R., Awoniyi, O., & Jaeyoba, O. (2016). Improvement of Human Resource Accounting Disclosure Practice in Financial Statements through IFRS: Evidence from Nigerian Banks. *International Journal of Business and Commerce,* 1-17. Retrieved from https://www.researchgate.net/publication/306323192_IMPROVEMENT_OF_HUMAN_RESOURCE_ACCOUNTING_DISCLOSURE_PRACTICE_IN_FINANCIAL_STATEMENTS_THROUGH_IFRS_EVIDENCE_FROM_NIGERIAN_BANKS

Alekhya, P., & Lakshmi, V. P. (2020). Impact of Human Resource Accounting on Companies Profitability. *TEST Engineering and Management*, 16048 – 16055. Retrieved from http://www.testmagzine.biz/index.php/testmagzine/article/view/9976

Aljamaan, B. (2017). Human Resources Accounting: Concepts, Objectives, Models, and Criticism. *Global Journal of Human Resource Management*, 1-10. Retrieved from https://eajournals.org/wp-content/uploads/Human-Resources-Accounting-Concepts-Objectives-Models-and-Criticism.pdf

Amahalu , N. N., Abiahu, F. M., Obi, C. J., & Okika, C. E. (2016). Effect of Human Resource Accounting on Financial Performance of Quoted Deposit Money Banks in Nigeria. *Global Journal of Human Resource Management*, 1-10. Retrieved from https://www.researchgate.net/publication/320245434_EFFECT_OF_HUMAN_RESOURCE_ACCOUNTING_ON_FINANCIAL_PERFORMANCE_OF_QUOTED_DEPOSIT_MONEY_BANKS_IN_NIGERIA

Argyres, N., & Mayer, K. J. (2007). Contract Design as a Firm Capability: An Integration of Learning and Transaction Cost Perspectives. *Academy of Management Review*, 118-123. Retrieved from https://www.jstor.org/stable/20159356

Asamu, J. K., Olawale, B. M., & Oluyemi, A. A. (2020). Human Resource Accounting and Disclosure: An Evolving Indicator of Performance in Selected Nigerian Stock Exchange Listed Manufacturing Companies. *African Journal of Accounting and Financial Research*, 53-67. Retrieved from https://abjournals.org/ajafr/papers/volume-3/issue-1/human-resource-accounting-and-disclosure-an-evolving-indicator-of-performance-in-selected-nigerian-stock-exchange-listed-manufacturing-companies/

Asika, E. R., Chitom, J.-A. R., & Chelichi, I. F. (2017). Appraisal of Human Resource Accounting on Profitability of Corporate Organization. *Economics*, 1-10. Retrieved from https://doi.org/10.11648/j.eco.20170601.11

Bandyopadhyay, S., & Rao, S. S. (2017). A test for Stationarity for Irregularly Spaced Spatial Data. *Journal of the Royal Statistical Society*, 95-123. Retrieved from https://www.jstor.org/stable/44681764

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 99-120. Retrieved from https://josephmahoney.web.illinois.edu/BA545_Fall%202022/Barney%20(1991).pdf

Barney, J. B. (2001). Resource-Based Theories of Competitive Advantage: A ten-year Retrospective on the Resource-based view. *Journal of Management*, 643-650.

Becker, G. S. (1962). Investment in Human Capital. A Theoretical Analysis. *The University of Chicago Press Journals*, 9-49. Retrieved from https://doi.org/10.1177/014920630102700602

Becker, G. S. (1962). Investment in Human Capital: A Theoretical Analysis. *The University of Chicago Press Journals*, 9-49. Retrieved from https://www.jstor.org/stable/1829103

Becker, G. S. (2009). *Human Capital.* London: The University of Chicago Press Ltd., London. Retrieved from https://books.google.ro/books/about/Human_Capital.html?id=9t69iICmrZ0C&redir_esc=y

Bell, A., & Jones, K. (2015). Explaining Fixed Effects: Random Effects Modeling of Time-series Cross-sectional and Panel Data. *Political Science Research and Methods*, 133-153. Retrieved from https://www.cambridge.org/core/journals/political-science-research-and-methods/article/explaining-fixed-effects-random-effects-modeling-of-timeseries-crosssectional-and-panel-data/0334A27557D15848549120FE8ECD8D63

Bonsu, O.-A. M., Dui, L. K., Ruiwen, L., Asare, E. K., & Prempeh, S. A. (2019). Exclusion of Human Resource Accounting in Statement of Financial Position and its Effects on Performance: Empirical Evidence of Ghana. *Business and Economic Research*, 1-17. https://doi.org/10.5296/ber.v9i2.14419

Capital Markets Authority. (2020). *Annual Bulletin.*

Cattaneo, M. D., Jansson, M., & Newey, W. K. (2018). Inference in Linear Regression Models with Many Covariates and Heteroscedasticity. *Journal of the American Statistical Association*, 1350-1361. https://doi.org/10.1080/01621459.2017.1328360

Chowdhury, L. A., Rana, T., Akter, M., & Hoque, M. (2018). Impact of Intellectual Capital on Financial Performance: Evidence from the Bangladeshi Textile Sector. *Journal of Accounting and Organizational Change*, 23-34. https://doi.org/10.1108/JAOC-11-2017-0109

Collis , J., & Hussey, R. (2014). *Business research.* Basingstoke: Palgrave Macmillan. Retrieved from https://books.google.ro/books/about/Business_Research.html?id=O3zUnQEACAAJ&redir_esc=y