

**EFFECTIVENESS OF TRAINING AND DEVELOPMENT ON EMPLOYEES'
PERFORMANCE AT FIRE & RESCUE FORCE DEPARTMENT, TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by The Open University of Tanzania a dissertation entitled, **“Effectiveness of Training and Development on Employees’ Performance at Fire & Rescue Force Department, Tanzania”** in partial fulfilment of the requirements for the award of Degree of Master of Human Resources Management (MHRM).

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DECLARATION

I, **Jamila Waziri Kindamba**, solemnly declare that the work presented in this dissertation is original and has not been submitted to any other university or institution. All instances where the works of others have been utilized are duly referenced. Therefore, I confirm that this work is genuinely mine and is presented in partial fulfilment of the requirements for the Degree of Master of Human Resources Management.



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Signature

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DEDICATION

This dissertation is wholeheartedly dedicated to Allah, the most Merciful and Wise as an expression of gratitude for His guidance, wisdom and boundless blessings throughout my academic journey. It is also dedicated to my family, who provided unwavering encouragement.

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ABSTRACT

This study investigated the effectiveness of training and development on employee performance within the Fire & Rescue Force Department in Tanzania, specifically in Dar es Salaam. The study focused on three key objectives which were to assess impact of on- the- job training, coaching, and job rotation to the performance of the employees. Consequently, informed by Human Capital Theory, with recognition of a positivism research philosophy, the study focused on a quantitative approach, and explanatory research philosophy. Sources of data included a structured questionnaire from a sample of 271 respondents. Descriptive statistics correlation analysis and multiple regression analysis was used to analyze the collected data. According to the research, results showed that on-job training, coaching and training on the job rotation all impacted in the performance of the employees in a sensitive and positive manner. On the job training led to increase in skill development and task accomplishment, coaching enhanced performance as well encouraged by job rotation its exposed employees to other departments and made them more proficient in problem solving. The study concludes that well-structured training and development programmes are essential for enhancing the performance of the employees in the Fire & Rescue Force. The study suggests to continue providing and intensively developing the training and coaching activities, frequently offering opportunities for mentorship, and systematically establish a job rotation program to developed employees' skills and their performance.

Keywords: *On-the-Job Training, Coaching, Job rotation and Job Performance.*

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
CVI	Content Validity Index
FRF	Fire and Rescue Force
HQ	Head Quarters
SD	Standard Deviation
SPSS	Statistical Package for Social Sciences
TNBC	Tanzania National Business Council

CHAPTER ONE

INTRODUCTION

1.1 Chapter Overview

This chapter covers the introduction part of this study. It mainly presents the background to the problem, statement of the problem, research objectives, research hypothesis, significance of the study, limitations and scope of the study as well as the organization of the proposal.

1.2 Background of the Study

Globally, the demand for highly skilled and competent fire and rescue personnel is increasing due to the rising frequency and complexity of emergencies. According to International Association for Fire and Rescue Service claimed throughout year that ten years ago the number of fire related cases are ten percent more than the present days and more focused on firefighting training and development activities (CTIF, 2023).

Secondly, if we consider the resource, human resource is one of the most important assets to any organization. The effectiveness and productivity of any organization can only be expected to be determined by the kind, character, capability and skills of the employees. Employee training and development is one of the major organizational responsibilities in organizations in both public and private domains (Akpalu & Markom, 2022). This is because high performance of employees is achieved escalating the success of the organization (Kafor, 2020). However, in Africa this is even more difficult because of the scarcity of facility and equipment's. A study conducted by Africa research and publications house confirms that most fire

departments across Africa operate with little or no necessary tools, and the personnel are not well trained respectively thereby causing high mortality and grievous injuries in cases of fire outbreaks. The above report also states that majority of African countries lack the National Fire Service, with responsibility for fire emergency control being done at the local level or by volunteer organization.

Akpalu & Markom found that training and development have significance role in human resource development for the achievement of personal and corporate objectives. They also provided evidence that Training and development affects not only the Employee and Organization performance, but also has effects on the performance of the Organization. Training and development were also discussed in this research by Akpalu & Markom, (2022) as one way through which organisations spend on people to acquire them the knowledge and competence necessary for the tasks they are assigned towards the job in the workplace.

In Tanzania's official Fire and Rescue Force Department (FRFD) is charged with the responsibilities of fire prevention and control, rescue activities and firefighting. Conversely, there are hurdles to the efficient functioning of the FRFD; this is because it lacks enough human resource, has old equipment, and fewer training. TFRF (2023) discovered that a meager 30 percent of the Fire fighters had ever gone through training; training deficiency was identified as a major performance impediment. According to TFRF (2023) performance training, only 30 percent of the Fire fighters had ever undergone training; training dearth was cited as one of the key performance decliners.

The Tanzania National Business Council (TNBC)'s 2019 findings also reveal that training and development remain crucial for growth in productivity, followed by motivating employees to minimize turnover, and increasing customers' satisfaction. The paper also acknowledges that human capital is a major challenge that hampers the performance and development of most Tanzanian firms since majority of firms lack skilled human resource. In order to overcome this challenge, the TNBC suggests that skills and capability of the employees should be developed for organizations through offering employee trainings and developments. According to Mwansa and Mwamba (2019) the training and development of employees in the Tanzanian environment have an influence on the performance of the employees.

This study of employing employees in the diverse industry which had evaluated the effect of training on job satisfaction, commitment as well as motivation, it demonstrated that employees who had received their training normally displayed greater job satisfaction, commitment as well as motivation. As a result, this study aimed at evaluating the relationship between training and development and employee performance at Fire & Rescue Force Department, Tanzania. Human capital theory used in this study to establish correlation between variables such as Employee Training, On the Job Training, Coaching and Job Performance.

1.3 Statement of the Problem

The Fire & Rescue Force Department in Tanzania faces significant challenges in ensuring its employees are adequately trained and developed to perform their duties effectively has identified considerable challenges towards providing its employees with the basic requirements of training and development to perform their functions

effectively. It has identified considerable challenges towards providing its employees with the basic requirements of training and development to perform their functions effectively. In Tanzania fire rescue personnel, a study conducted by the Ministry of Home Affairs (2020) showed that only 35% of them had undergone through some form of training in fire suppression and emergency response for the prior 5 years.

This outdated training can have very dire consequences as seen by the Tanzania National Bureau of Statistics report of the 12% increase in property loss due to fires accidents in the year 2020 from the year 2019. In addition, the limited funds hemmed employee training and development inside the department worsen the situation. A budget analysis conducted by the Ministry of Finance in the year 2023 establish that only point five percent of the annual budget of the department is used to fund training and professional development plans for staff. This is because for the personnel in fire and rescue to deliver expected tasks safely and effectively they require to be trained and developed effectively (International Association of Fire Fighters, 2020).

Research has revealed that enhancement of staff training and development enhances a delivery of service in various fields. Another study by Rwechungura, (2020), observed that service delivery in the Zimbabwean health sector was enhanced kind of employee training and development programs. This paper also found that those health workers who underwent training and development programs increased job satisfaction by about a quarter outstandingly enhancing the quality of services offered.

Despite the contributions made by previous studies on employee performance and training in Tanzania, there is still a gap in understanding the specific factors that contribute to the application of acquired skills and the overall effectiveness of training programs. Therefore, this study focused on assessing the effect of training and development on employee performance at the Fire & Rescue Force Department in Tanzania.

1.4 Research Objectives

1.4.1 General Objective

To assess effectiveness of employees training and development on employee's performance at fire & rescue force department, Tanzania

1.4.2 Specific Objectives

The study aimed to achieve the following specific objectives:

- i. To examine the effect of on-the-job training on employee performance at the Fire and Rescue Force.
- ii. To examine the effect of coaching on employee performance at Fire& Rescue Force.
- iii. To examine the effect of Job rotation on employee performance at Fire & Rescue Force.

1.5 Research Hypothesis

- i. H_{a1} : There is positive relationship between on-the-job training and employee performance at the Fire and Rescue Force
- ii. H_{a2} : There is positive relationship between coaching and employee

performance at Fire& Rescue Force

- iii. H_{a3}: There is positive relationship between Job rotation and employee performance at Fire & Rescue Force

1.6 Significance of the Study

The significance of this study it brings the knowledge base of the Fire & Rescue Force Department in Tanzania in terms of using the findings to assess the impact of their employee training and development initiatives. The findings, let the organization discover those regions that need correction, design fresh effective techniques and generally improve the work of their staff. Further, this research can become the starting point for other researchers in the context of human resource development by offering specific recommendations and examples of practice that can become the cornerstone for further research into the topic. In addition, by providing a clearer picture of the link between employee training and development, and job performance, it may also deliver advantages to academicians and practitioners in similar fields.

1.7 Scope of the Study

In undertaking this study, the dependent variable of the study was the extent to which training and development programs affect employee performance of the Fire & Rescue Force Department, in the Dar es salaam region, Tanzania. The study had three main objectives: In order to analyses the role of on-the-job training on employee performance we have, in order to analyses the role of coaching on employee performance and In order to analyses the role of leadership on employee performance. The data for the study were collected from a sample of employees of

the Fire & Rescue Force.

1.8 Organization of the Study

This dissertation is structured into five main chapters: Chapter One introduces the research topic. Chapter Two provides a comprehensive review of the relevant literature. Chapter Three outlines the research methodology that was employed. Chapter four presents the results and the discussion, and Chapter five presents the conclusion and recommendations. In addition, the dissertation includes appendices that contain the interview guide, questionnaire, and references.

CHAPTER TWO

LITERATURE REVIEW

2.1 Chapter Overview

This chapter presents the literature review that discusses various literatures related to this study. It specifically presents the definitions of key terms, theoretical literature reviews, empirical literature review, research gap and conceptual framework.

2.2 Definitions of Key Terms

2.2.1 Employee Training

Employee training defined as the process of developing the skills, knowledge and scope of a car employee in an organization with a view of improving performance in the existing or current position. IT is formal and systematic process of developing or training people in order to acquire technical and interpersonal competencies necessary to address organizational needs. Training for the purpose, hence, aims at synchronizing organizational needs with employee skills, in order to cope with changes within the organization. Johnson (2020) noted that training promoting skills development of employees enhances innovation and productivity.

One of the definitions of employee training is also a process of sharing required knowledge and skills within the company to enable employees to correctly fulfill their functions. The workplace learning and development focus on filling the knowledge gap that the employee presently possesses and the knowledge that is deemed relevant to the employee's occupation or job. The learning process can therefore be face-to-face training, including seminars, classes, or meeting sessions, web-based learning, or learning by work experience depending with the

organization. In a study by Smith in 2020, organizations that incorporated a systematic approach in knowledge management through training of the employees absorbed better knowledge across their business and in dynamic field attained enhanced team performance.

2.2.2 On- the job-Training

On job training or OJT refer to the process pf training an employee while they are on the job in a particular working environment under the direction of experienced employees or supervisors. This happens at the workplace with the focus on the workplace's tools and work processes that the employees will use greatly in their practice. The principal benefit of OJT is that what is learned is applied right away on the job, making it easier to remember and more relevant. On the job training encourages quicker understanding of the competence and improves employee performance since the training process is done in relation to actual jobs which makes it one of the most excellent categories of place-bound training as explained by Gupta and Verma (2020).

Job experience is an on-site learning process where the staff acquires certain job-type skills while on the working schedule. Such training is usually more flexible and can be made to fit an employee's immediate job description as well as his or her promotion prospects in the company. Arguing that OJT is particularly useful for teaching technical and interpersonal skills within context, Kumar and Sharma (2020) This makes OJT undergo close supervision and mentorship during the practice to enable the employers to give immediate feedback in order to enhance the efficiency of the employees while mastering the tasks.

2.2.3 Coaching

Coaching is defined as process involving the proactive one on one training of a learner for improved performance in his or her career. It usually concentrates on development by coaching, mentoring and criticizing. By the definition of Grant and Hartley (2020), coaching provides the opportunity to focus on assets and deficits aiming at developing self- knowledge and reaching particular objectives. This self-actualization realization that distinguishes coaching from training makes for a process of skill build-up, learning and change, where the coachee becomes an active participant in his/her growth path.

2.2.4 Job Performance

Job performance is the extent of achieving the content of the job descriptions by the employees in an organization. Motowidlo and Kell (2020) defined job performance as the manner in which and the degree to which an employee fulfills the organizational requirements, accomplishes various activities, and supports the organization. It covers not only the attainment of particular goals but also the extent and rhythm of those goals' achievement.

Job performance can be a generally accepted concept that defines an employee's potential for performing tasks both in traditional and new contexts. Griffin *et al.*, (2020) defines this wider perspective of performance as encompassing of task performance, adaptive performance, and contextual performance the latter being employees' behaviors that are more inclined towards the social and psychological contexts of the organization. According to the definition, learners cannot simply do their job properly but they ought to exercise flexibility, teamwork, and creativity in

their conflicting environments.

2.3 Theoretical Literature Review

2.3.1 Human Capital Theory

Human Capital Theory (HCT) is an economic theory that aims at the enhancement of human beings to IPOs with investment on education, training, and health with positive influence on the human capital in labour market. The theory was first advanced in the 1960's by Gary Becker, the Nobel laureate in economics science. HCT presupposes that the employees are resources of an organization and enhancement of its training and development results in the enhancement of the knowledge, skills and abilities of the employees hence enhancing the performance and the productivity of the employees (Carlbäck, 2024).

Human capital theory is based on the assumption that people are the most important capital resource and that investments in human resources would increase productivity of human capital greatly. In the perspective of HCT, people acting rationally to invest in human capital as long as they are likely to gain something in return, while employers are willing to increase organizational value from human capital investment (Abu-Shawish, 2023).

2.3.2 Strengths of Human Capital Theory

Human Capital Theory stands in valuing the resource in the economic improvement through by education, training, and skills development. Thus, valuing human beings as resources means appreciation of knowledge and special competencies,

which bring higher, better paid jobs, promotion, organizational growth and, in general, economic prosperity of the society. Furthermore, it is important to note that Human Capital Theory that emphasizes learning capital accumulation and constant improvement of other forms of human capital as a result of further education to meet challenges of today's fluid labor market is a suitable lens to explain

2.3.3 Weakness of Human Capital Theory

A limitation of Human Capital Theory is that it limits assessment to individual and economic factors while ignoring context factors that shape human capital. The theory prescribes investments in education and training to result in improved productivity and hence economic growth because human capital is valuable asset, yet it fails to recognize the structural realities such as discrimination, limited access to opportunities and the unequal distribution of resources which deny individuals the opportunity to fully develop their human capital.

2.3.4 Justification for Choosing Human Capital Theory

Human Capital Theory is appropriate in analyzing the impact of the training and development program on employees' performance in Rescue Force Department of Tanzania. According to the theory, the actions such as training and development of the employees shall enhance their knowledge skills, and ability, thereby improving the employees' performance and productivity. Training and development more so within the Fire & Rescue Force Department enables the employees to develop adequate understanding, and knowledge in dealing with any emergent situation, operation of various equipment's, rescue and firefighting services.

2.4 Empirical Literature Review

2.4.1 The Effect of On-the-Job Training on Employee Performance

Ali et al. (2020) examined the effect of on-the-job training on employees' performance in the banking sector in Pakistan. The study employed a cross-sectional survey design, selecting 150 employees through random sampling. A structured questionnaire was used for data collection, and regression analysis was performed to determine the relationship between on-the-job training and job performance. The findings showed that on-the-job training improved problem-solving skills, production outputs, and employee satisfaction.

The study suggests that banks that implement structured on-the-job training programs can enhance employee efficiency and service delivery. A significant implication is that financial institutions should integrate continuous employee training into their human resource strategies to improve service quality. The conclusion drawn was that investing in job training positively correlates with employee performance and job satisfaction. This study relates to the current research by emphasizing the role of job training in performance enhancement. However, the current study differs by focusing on the Fire and Rescue Force, where emergency response skills and preparedness are crucial, requiring specialized training approaches beyond banking operations.

A study by Harshani (2021). The research evaluated the relationship between workplace-based education and performance results at Noritake Lanka (Pvt) Ltd's production assistant workforce in Matale Sri Lanka. The study established itself as cross-sectional while using structured questionnaires for data collection. The study

selected 100 production assistants through random sampling processes. The research used a quantitative approach for investigation and performed correlation and regression analysis on the collected data. Employee performance shows substantial improvement through on-the-job training because it develops their skills while promoting operational efficiency and lowering mistake rates.

Organizations must continue investing in training initiatives because they provide proven results in workforce quality enhancement. Manufacturing organizations must commit their resources to establish methodical on-site training programs because these programs strengthen operational effectiveness and organizational results. Organizations giving value to on-the-job training experience improved workforce performance as well as higher job satisfaction levels. The present research maintains parallelism with this study through its execution of employee performance and training relationship examination. In contrast to previous works the present research expands its examination by studying several job training techniques including coaching and job rotation together with mentoring rather than concentrating exclusively on production assistants at a single company.

The study by Mohammed et al. (2021) investigated on-the-job training effects in Saudi Arabia retail settings on employee productivity from multiple training sessions. A cross-sectional design guided the research while questionnaires with structured formats were distributed to retail personnel for data collection. Correlation and regression analysis evaluated the importance of on-the-job training to establish its significance in the research data. The research data showed that training several times led to improved work productivity as well as lower mistakes and better staff

suitability.

The research shows that workplace training creates an opportunity for employees to develop continuously thus leading to improved efficiency and confidence. Organizations operating retail should create formal training systems which support sustainable top-tier service quality while lowering operational mistakes. Organizations need ongoing employee training to improve their workforce efficiency within a competitive retail market according to study findings. The investigation matches this study because it demonstrates how training enhances performance at work. This investigation investigates training's effects on emergency response effectiveness in the Fire and Rescue Force whereas the previous research focused solely on retail operations. Job rotation and coaching are analyzed in the current research although Mohammed et al. did not focus on these concepts.

Wambua and Chege (2021) conducted a study in Kenya's healthcare sector, research context studied how on-the-job training affects performance. The researchers applied survey research design to collect information from healthcare personnel through structured questionnaire surveys. Statistical methods especially correlation and regression techniques helped determine the relationship between training programs and employee performance results. Research outcomes demonstrated that training performed at patients' bedside enhanced patient care quality due to better practical skills and service efficiency improvements by healthcare providers.

The findings lead to the conclusion that healthcare organizations need to support their personnel through job site training to enable them to tackle dynamic hospital

settings. The key advantage from training results in enhanced healthcare worker capabilities that lead to stronger responses to patient requirements which produce better quality healthcare services. Professional excellence depends on steady career development programs in workplaces where conditions show frequent changes. The study presents evidence which proves training as an effective method to enhance specialized job performance in the workforce. This current research examines emergency response improvements for the Fire and Rescue Force due to on-the-job training even though the previous study focused on patient care.

Karanja, et al., (2022) investigated the impact of on-the-job training on the manufacturing industry staff in Nairobi, Kenya. The researchers used both quantitative methods and structured questionnaires as their research design for data acquisition. The researchers used survey data obtained from various manufacturing employees to investigate training effects on employee performance using statistical approaches. This research demonstrated that training personnel within their work environment delivered better technical competencies and boosted operational efficiency alongside job performance enhancement.

Organizations need to establish ongoing training initiatives which build a skilled workforce with excellent productivity levels. Organizations operating in manufacturing need to create formal training systems which will help develop technical expertise and improve operational efficiency among their employees. The research confirmed that systematically delivered job-based training leads to superior workplace performance because it provides workers with appropriate competencies. The findings of this study agree with contemporary research by demonstrating the

benefits of training on employee performance. The current study examines emergency response initiatives as they require training to develop essential capabilities for saving lives during disaster response operations. Leadership development together with job satisfaction form part of the current research's outcomes after on-the-job training sessions while Karanja et al.'s investigation does not measure these effects.

The analysis in this current research about on-the-job training effects on employee performance advances previous studies by studying training effectiveness within the high-risk operational area of the Fire and Rescue Force. Emergency response capabilities together with teamwork and leadership advancement within specialized forces receive analysis in this research which expands from banking and healthcare and manufacturing and retail. The investigation of on-the-job training consequences for employee performance stands as Ha1.

2.4.2 The Effect of Coaching on Employee Performance

Adekunle et al. (2020) conducted research to study how coaching affects employee output in the Nigerian banking sector. Team coaching served as the research subject to analyze its influence on employee commitment and job satisfaction and workplace productivity. The researchers used cross-sectional survey design to collect data through structured questionnaires from banking sector employees. The study analyzed the relationship between productivity and coaching by using statistical methods that combined correlation coefficients with regression calculations. Coaching methods proved essential for employee deficiency and asset assessment followed by objective definition which resulted in efficiency improvements.

Biased data collection from participants who received coaching showed higher commitment levels along with elevated job satisfaction which resulted in elevated productivity standards. Research findings demonstrate that organizations must use coaching programs within training strategies to create an efficient workforce that is motivated. The research investigation declared coaching methods as fundamental tools which boost performance while developing employees in bank institutions. The present research connects to the findings of this study because it demonstrates the positive way coaching enhances employee work performance. This study advances previous research by studying coaching practices in multiple workplace environments outside banking and evaluating different coaching methods which impact performance results.

The study conducted by Tuli, et al., (2021) analyzed coaching efficacy changes in India among sales staff to understand its effects on work outcomes and customer happiness. The research conducted a structured coaching program assessment on employees which included two data collection points before and after the program implementation. Surveys and performance evaluations provided the research data which statistical analysis using paired t-tests revealed changes in employee performance together with client satisfaction.

The research showed that coaching created substantial performance gains for sales workers because it enriched their personal communication abilities and their sales abilities together with their abilities to connect with clients. The client satisfaction levels increased among customers who interacted with employees who received coaching because these employees showed enhanced problem-solving abilities and

communication skills.

Organizations should integrate formal coaching systems to enhance employee effectiveness which leads to improved client relations according to the study findings. The research demonstrates that employee coaching represents a fundamental mechanism which strengthens both employee professional abilities and organizational operational success. The recent study confirms the current research by establishing performance improvement through coaching. This study expands research by evaluating coaching practices throughout various industries and measuring sustainable effects of coaching on both professional advancement and leadership abilities.

Singh and Kaur (2021) conducted research on coaching implementation in Indian information technology (IT) organizations specifically regarding decision-making and technical abilities. The research used qualitative methods to interview IT personnel who received professional coaching. The analytic process employed thematic analysis to uncover main themes that described decision-making processes together with technical abilities and career progression. Research data showed that employees receiving coaching experienced marked improvement across decision-making abilities together with their technical skills and work output. IT professionals reported better performance in complex computer tasks which resulted in professional growth and work satisfaction.

Research results indicate that organizations should put into practice structured coaching initiatives to advance employee capabilities while boosting their career

outlook. The study demonstrated that coaching produces beneficial impacts on personal development along with professional competence which results in better organizational achievement. This study holds significance to the current research because it proves how important coaching is for developing skills as well as decision-making abilities. This study contributes new insights to the field by utilizing quantitative methods for coaching performance evaluation alongside examination of how coaching supports organizational leadership development and innovation processes.

Mbaga along with Mwamgoalye (2019) conducted research on coaching effects on employee performance throughout 10 Tanzanian businesses. The authors examined how coaching practices influence productivity measurements and job satisfaction levels and employee commitment rates. A survey investigation applied structured questionnaires that were distributed throughout different sectors to collect employee data. The research performed regression and correlation analysis to evaluate the connection between coaching and measured performance data. Results from the research showed that coaching positively affected staff productivity along with their ability to set goals and increased their job satisfaction level.

Coaching participants displayed better ability to recognize personal capabilities along with aptitude for establishing achievable work goals and enhancing their task performance. The study showed that organizations need to establish coaching programs in their human resource development plans to reach maximum employee potential. Research findings demonstrate that coaching stands as a critical factor which drives both individual staff accomplishment and total organizational

expansion. The study demonstrates through its findings that workforce performance enhancement comes from the use of coaching techniques. The present study expands the analysis of coaching by investigating its organizational impact on leadership advancement and problem-solving ability and workforce adjustment to dynamic workplace conditions.

Chituo (2021) studied manpower training and employee development at Access Bank Plc Nigeria through an analysis of staff training correlation to employee competency levels. The research design used surveys and interviews as mixed-methods methods to obtain data from banking employees. The research team employed regression analysis to process quantitative results but employed thematic analysis for the evaluation of qualitative information. The research data indicated that job training established strong favorable connections with employability skills while coaching directly impacted both worker competency and operational performance. Workers who completed coaching programs showed better skills in problem-solving, greater worker confidence along with increased adaptability in the workplace. Organizations need to embed coaching elements within their training initiatives in order to boost workforce productivity according to study results. The research demonstrated coaching serves as a mandatory tool to enhance employee skills along with sustaining professional progression. Research results align with current findings through evidence that demonstrates how coaching advances person skills and performance levels.

The present study advances prior work about coaching impact on employee performance by analyzing multiple business sectors to supplement single-sector

research. Research has confirmed that coaching raises productivity yet this study investigates which coaching methods work best for various performance results. Therefore, Ha2: study also reveals a strong correlation between coaching and performance of the employees.

2.4.3 The Effect of Job Rotation between Leadership and Employee Performance

Khan (202X) conducted research to study how job rotation affects performance levels in manufacturing staff at Pakistani organizations. The researchers studied role transfers among employees and their relationship to leadership growth alongside work performance levels. Employee surveys were conducted among different departments but the article avoided specifying the sampling method. Job rotation performance relationships were determined through methods of correlation and regression during data analysis. The study results indicated that job rotation benefits leadership development and performance thus companies should create formal job rotation systems for better employee qualifications. Job rotation creates adaptable workers while simultaneously building their managerial competence according to the research results. The primary research links to current studies through its leadership discussion of job rotation yet its main objective includes evaluating advanced relationships between leadership effectiveness and employee productivity and job rotation.

Job rotation received attention in a research study by Chen and Liu (2020) about China's construction industry because it demonstrates effects on staff skills together with employee drive and managerial advancement. The research design integrated

survey methods together with interview techniques to gather data from multiple departments' staff members. Regression analysis detected essential linkages between employee results and job rotation implementation practices. The research results showed that experiencing different positions created better job satisfaction and better organizational understanding combined with superior work performance outcomes. The research data proved that employees who experience job rotation during their initial years develop better professional advancement throughout their careers. The current study examines the mediation of leadership effect through job rotation to achieve improved employee performance while extending findings from the original research.

A study conducted by Rahman, et al., (2021) studied job rotation practices in Bangladeshi banking institutions to understand its effect on employee burnout prevention and workplace performance improvement. A studied group of bank staff members received questionnaires from the cross-sectional survey which led to its implementation. The statistical analysis by regression showed a robust positive relation that existed between job rotation practices and higher employee motivation levels as well as better performance outcomes and diminished turnover incidents. Through job rotation employees experience increased efficiency while their work-related monotony decreases leading to better engagement at work. This study shares similar performance results with the research but the current study fills the gap regarding job rotation effects on leadership development and employee advancement.

Job rotation practices in Malaysia's pharmaceutical industry were researched by Hassan et al. (2022) to determine their impact on leadership development and

problem-addressing capabilities. This research used structured surveys and managerial interviews as parts of its case study methodology. Statistical techniques both descriptive and inferential measured the connection between job rotation and leadership effectiveness. Workplace flexibility and cross-functional collaboration together with employee decision-making skills grew due to job rotation according to the research results. Research results show that defined work shift systems enable employees to develop various capabilities that serve dynamic workplace requirements. This evaluation supports the current research but the present study develops empirical proof about the roles of job rotation in shaping leadership abilities and operational efficiency.

Job rotation programs in Pakistan's telecom sector received evaluation by Farooq and Khan (2021) who explored its consequences for employee motivation alongside organizational success rates. The researchers employed quantitative survey methods using structured questionnaires to measure responses from different departments of their study population. The study with regression analysis established that workers exposed to job rotation gained better insights into their company structure that enhanced both their commitment and work results. The research confirmed that job rotation enables organizations to obtain motivated workers who develop strategic business awareness.

This investigation demonstrates a connection between job rotation and motivation yet the present study investigates exactly how leadership development from job rotation impacts employee performance levels directly. The Iranian hospitality industry became the focus of separate research done by Sabbaghi and Hosseini

(2019) concerning job rotation theory (Alpha) and employee performance theory (Beta). By applying cluster sampling the researcher gathered data from 250 employees. Job rotation creates positive changes that enhance leadership conduct and improve staff performance levels. The research indicated that hotels need to implement job rotation as a method to improve leadership and employee performance. Therefore, Ha3: Leadership has found to be positively related with the performance of employees.

Table 2.1: Summary of the Previous Related Studies

Study	Variables Examined	Data Analysis Methods Used	Main Findings
Nawarathna, Abeykoon, & Harshani (2021)	On-the-Job Training	Correlation and regressions methods	On-the-job training has a significant impact on employee performance.
Mvuyisi & Mbukanma (2023)	On-The-Job training	Descriptive & Content Analysis	On-The-Job training is effective in improving employee performance and productivity.
Jiang and Liao (2020)	On-the-job training	Descriptive & Content Analysis	Training programs focused on technical skills and customer service significantly improved employee performance.
Mwakyusa and Tarimo (2020)	Coaching	Descriptive & Content Analysis	Coaching helped employees to develop their problem-solving and decision-making skills, and improved communication skills.
Enyinna and Chituo (2021)	Manpower training and employee development	Multiple regression analysis	Job training has a significant positive relationship with employability skills, coaching has a significant positive relationship with employee competency.
Khan et al. (2021)	Job rotation	Multiple regression analysis	Job rotation has a significant positive effect on leadership style and employee performance.

2.5 Research Gap

2.5.1 Empirical Gap

While studies such as Ali et al. (2020) and Mohammed et al. (2021) have examined the effectiveness of training in various sectors, including banking and retail, there is

a distinct lack of research focusing on the specific context of the Fire and Rescue Force (FRF) in Tanzania. Previous research has not addressed how specialized training programs tailored for emergency response can influence employee performance in high-risk environments. This study fills this empirical gap by investigating the impact of training and development specifically within the FRF, thus providing insights into how such programs can enhance emergency preparedness and operational efficiency.

2.5.2 Contextual Gap

Existing literature, including studies by Karanja et al. (2022) and Harshani (2021), has primarily centered around industries like manufacturing and healthcare, which have different operational challenges compared to the FRF. The unique organizational structure, cultural dynamics, and operational requirements of the Fire and Rescue Force have not been adequately explored in the context of training and development. This study fill this contextual gap by examining the appropriateness of training strategies tailored to the FRF, thus ensuring that findings are applicable to its specific environmental and operational contexts.

2.5.3 Theoretical Gap

Most studies, such as those conducted by Waithira (2018) and Manzoor et al. (2021), have relied on limited applications of training theories, focusing primarily on general employee performance metrics without considering the unique challenges faced by emergency services. The lack of comprehensive theoretical frameworks that incorporate the specific dynamics of the FRF limits understanding of how training influences performance outcomes in this sector. This study fills this theoretical gap

by applying Human Capital Theory to analyze the intricate relationship between training, skill enhancement, and employee performance in the FRF, thus contributing to a more nuanced understanding of motivation and effectiveness in this unique context.

2.5.4. Methodological Gap

The reviewed studies primarily focused on general employee perceptions and interviews but lacked an in-depth exploration of frontline workers' experiences. Additionally, previous research did not utilize techniques that could capture the nuanced opinions of those directly engaged in operational tasks. In contrast, the study on the effectiveness of training and development on employees' performance at the Fire & Rescue Force (FRF) Department, Tanzania addressed these gaps by adopting a quantitative approach specifically targeting frontline workers.

2.6 Conceptual Framework

Conceptual framework is a theoretical model of the interrelation between the influential factors, variables or constructs based on the research issue under study (Ravitch & Riggan, 2017). This is used in articulating factors of learning, maps out visibility, leads on the design of conducting research and channeling data. This conceptual model of this study holds it that three independent variables that are; on-job training and development, coaching and leadership have a major impact on the dependent variable that is the employee performance in the Fire & Rescue Force Department in Tanzania. While on the job training improves the stock of knowledge of the employees in matters concerning their area of work, coaching offers personal direction on how one can do better than they are currently doing. Good management

positively influences needs that give motivation in their work place and ensures that there is direction with right focus, scope and targets to manage affairs as they undertake duties.

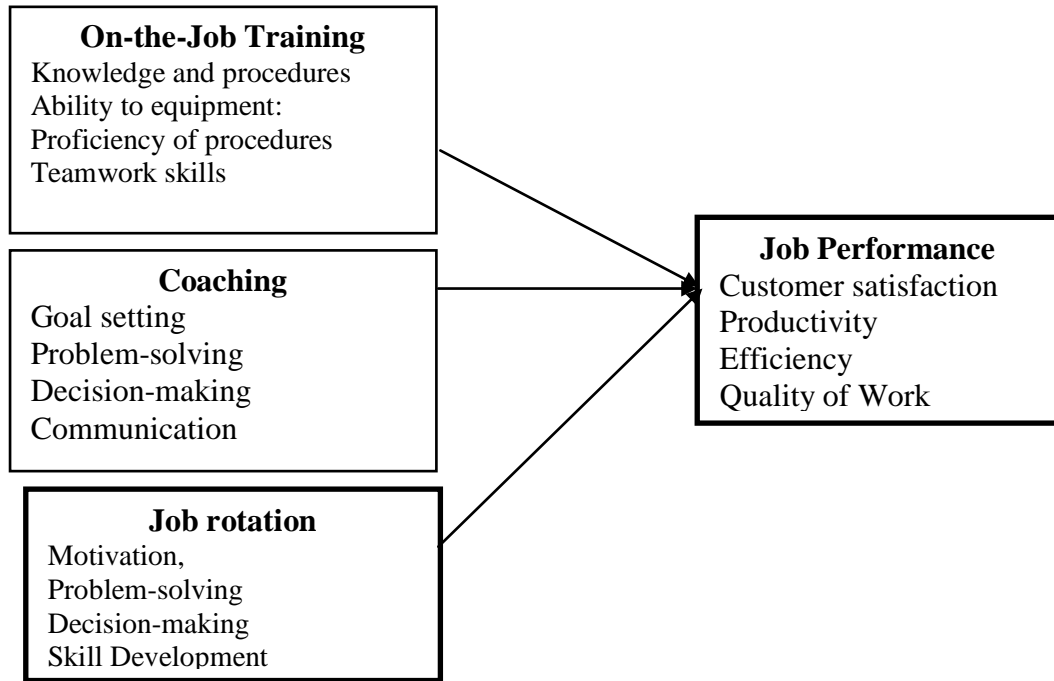


Figure 2.1: Conceptual Framework

Source: Researcher, (2024).

2.7 Theoretical Framework

According to Human Capital Theory, resources should be used to build, develop and expand employees' skills that will improve their productivity levels (Becker, 1964). With regards the Fire and Rescue Force, each of the various professional development training strategies including on the job training, coaching, and cross training are valuable forms of human capital investments that yield improved performance. The following section describes actual patterns between these methods and the performance of employees; such patterns show the importance of consistent training and practical experience within the Fire and Rescue Force.

2.7.1 Effect of On-the-Job Training on Employee Performance at the Fire and Rescue Force

Human Capital Theory also emphasizes the role of individualized training to build capabilities of its workers and increase effectiveness, morale and productivity (Becker, 1964). In the Fire and Rescue Force, coaching means that a staff member with more experience, or higher rank, provides their knowledge to a junior employee. This form of development is particularly important in refining critical decision-making skills, leadership traits and response to disastrous situations. Especially important for current positions, coaching creates an opportunity for skill-oriented learning in a strategic area crucial to the success of an employee.

H1: *There is a significant positive effect of on-the-job training on employee performance at the Fire and Rescue Force of Tanzania.*

2.7.2 Effect of Coaching on Employee Performance at the Fire and Rescue Force

Human Capital Theory clearly points that different experiences contribute in raising the value of human capital. As a developmental technique, it floats employees from their cadre to another cadre in the organization to ensure that they gain a wider view of organizational dynamics and standard working procedures (Becker, 1964; Nafukho *et al.*, 2004). In fact, in the Fire and Rescue Force, employees are encouraged to practice job rotation so that they will be able to develop a variety of skills across their work fields. This not only enhances their personal efficacy but also the teams' emergency response capacity as identified in this paper.

H2: *There is a significant positive effect of coaching on employee performance at the Fire and Rescue Force of Tanzania.*

2.7.3 Effect of Job Rotation on Employee Performance at the Fire and Rescue Force

As suggested by Human Capital Theory, different experiences increase the worth of human capital. Another advantage of job rotation as a developmental technique is the ability of the employee to learn more about the organization and how it functions because he/she is rotated through different positions within the organization as pointed out by Becker (1964). In the Fire and Rescue Force, an example is the job rotation whereby all employees undergo a kind of flexibility that enhances their diverse skills. Not only does it enhance their workforce outputs but also makes the collective team capability to meet multifaceted and volatile emergencies.

H3: There is a significant positive effect of job rotation on employee performance at the Fire and Rescue Force of Tanzania.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Chapter Overview

This chapter covered research methodology, which includes the research strategies, population of the study, area of the study, sampling design and processes, the methods of data collection and data processing and analysis.

3.2 Research Philosophy

Research philosophy is defined as the development of knowledge and the nature of that knowledge (Mbanaso, 2023). A research philosophy is a belief about the way in which data about a phenomenon should be gathered, analyzed, and used. A positivism philosophy was employed in this study. This philosophy used in this study because positivism is a philosophy that believes reality is stable and can be observed and described from an objective viewpoint (Park *et al*, 2020).

3.3 Research Approach

In this study the sample is quantitative methodology was employed. A quantitative method is useful in the collection of quantitative data which are in numerical form (Park *et al*, 2020). The rationale for obtaining this quantitative information was mainly to explain and forecast the characteristics of a phenomenon using models and theories. In general, this study applied a quantitative approach to capture data with the survey method applied.

3.4 Research Design

According to Huntington (2021), design is defined as a plan of “how you will go about answering your research question. Rezigalla, (2020) pointed an opinion that

the type of studies that compare causality between one variable and another is explanatory studies. Hence, the research design of this study was explanatory aiming at identifying correlation between the independent variable and the dependent variable.

3.5 Study Area

Dar es Salaam was selected as the study area for the research because it is the largest city and commercial hub of Tanzania, with a high population density and a rapidly growing economy. The Fire & Rescue Force Department in Dar es Salaam is responsible for providing emergency services, including firefighting, rescue operations, and disaster management, to the city's residents and businesses. Therefore, the effectiveness of the department's employees' training and development programs is crucial for ensuring the safety and well-being of the city's population.

3.6 Target Population

The population of interest in this study was the Tanzania Fire and Rescue Force in the Dar es Salaam Region. There is an office of the Force and three branches in the area. From the human resource officer, the total number of target population in the FRF was 840 of staff.

Table 3.1: Population Distribution

S/N	Category of respondents	Employee population
1.	Firefighting operation	350
2.	Revenue collection	100
3	Resecure operation	200
4.	Fire buildings inspection	190
	Total	840

Source: Researcher, (2024).

3.7 Sample Size and Sampling Procedure

3.7.1 Sample Size

Sample size means a segment of the population chosen by the researcher in a study area to give maximum information with regards to that population being investigated based on the research question (Lakens, 2022). It gives a description of the general features of the sample population from which the researcher derives hypotheses and conclusions (Rahman, 2023). The sample size for this study was arrived at using Taro Yamane's (1973) formula using a 95% confidence interval.

The formula is given as; $n = \frac{N}{1+N(e)^2}$

Where

n = the sample size

N = the population size = 840

e = the level of precision = 5%

Thus, $n = 840/1+840 (0.05)^2$.

$n = 840/1+840 (0.0025)$.

$n = 840/1+2.1$

$n = 840/3.1$

$n = 270.9$

Therefore, the sample size (n) for this study was 271

Table 3.2: Distribution of the Study Sample Size

S/N	Category of respondents	Employee population	Sample size
1.	Firefighting operation	350	119
2.	Revenue collection	100	49
3	Resecure operation	200	66
4.	Fire buildings inspection	190	37
	Total	800	271

Source: Researcher, (2024).

3.7.2 Sampling Procedure

Sampling can best be described as the method of choosing some members from a population with the aim of making the chosen members representative of the entire population (Zhang,2022). Individual components picked out for study or for use in a statistical experiment are referred to as a “sample”. The researcher took the sample from among the staff of the FRF in Dar es Salaam. Thus, this empirical study relied on both primary sources of data collected among the staff of the FRF in Dar es Salaam. Convenience sampling was employed whereby targets were picked on a most convenient subject to reach the researcher basis.

3.8 Data Collection Methods

According to Lobe, (2020), a questionnaire is defined as a method of data collection whereby respondents write down their response to the questions posed. Self-completion techniques are commonly used data gathering tools because they save costs and time. In this study, the option of developing a simple questionnaire tool was adopted and implemented. Hypothesis on structured questions was developed by rating system Likert scale.

3.9 Data Analysis

Data analysis is the process used to interpret the data and making conclusion from the data collected is a common analysis called data analysis (Enders, 2022). Quantitative data analysis was done with the use of Statistical Package for Social Sciences (SPSS) version 20. The multiple regression analysis technique was used, and to offer the detailed regression analysis, two-step statistical analysis approach was employed. Researchers conduct preliminary analysis of the results of employee

motivation by using the initial method of factor analysis. Second, multiple regression analysis was conducted in order to determine the existing correlation between employee motivation and organizational performance.

The multiple regression model is given as;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu_i$$

Where;

Y = the dependent variable,

β_0 = the regression coefficient/constant/Y-intercept,

$\beta_1 \beta_2 \beta_3$ = the slopes of the regression equation,

$X_1 X_2 X_3$ = explanatory variables (i.e., X_1 = On-the-Job Training, X_2 = Coaching, X_3 = Leadership).

3.9.1 Regression Assumptions

Like any other statistical technique, regression analysis has certain assumptions which, when met, make test results valid. The following assumptions need to be made for achieving the objectives of the regression analysis as follows: Five key assumptions of Ordinary Least Squares (OLS) regression examined: problems that include multicollinearity, homoscedasticity, the presence of outliers, linearity and normality (Alita, 2021).

3.9.1.1 Linearity Assumption

The linearity assumption implies that all the independent variables must have linear relationship in order regression analysis to be applicable (James, 2023). This then implies the coefficients indicate that for each increment of the predictor, the mean

value of the outcome variables should lie on a straight line. Checking whether the data satisfy this assumption can be made through use of the P-P plots in which the observed data line will be diagonal like the line.

3.9.1.2 Normality Assumption

The normality assumption supposes that the residual distribution is normal and regressed residuals are the differences between the actual and expected values (Knief, 2021). Another method of checking normality of residuals is to use the histogram. In an ideal world, we would want the histogram of residuals to be well centered at zero and have an approximately normal distribution, which if a Q-Q plot of the residuals would appear to follow the line.

3.9.1.3 Outlier Assumption

According to the histogram outlier assumption, any residual values beyond points 3 should be considered outliers. Diakonikolas (2020) uphold this threshold and indicate that any value above 3 is considered an outlier. Outliers may greatly influence parameter estimates such as the mean or distort sum of squares and therefore produce incorrect standard errors and interval confidence. In such cases, the values of case variables might be ideal to be stripped if their values are beyond the norm.

3.9.1.4 Homoscedasticity Assumption

The homoscedasticity assumption is usually that the variability of the mistake term will also be the same for every level of the independent variables (Daryanto, 2020). However, to check the assumption of homoscedasticity one has to plot standardized residuals (scatter plots) against the predictor values. Heteroscedasticity is confirmed

if the scatter plots show a cone-shaped or a fan-shaped form.

3.9.1.5 Multicollinearity Assumption

In their model they suggested that the independent variables should not be significantly correlated which means that the data is not multicollinear. The existence of multicollinearity can be tested using the, Variance Inflation Factor (VIF) values which measures how large the variance of the estimated regression coefficients is when as a result of multicollinearity (Chan, 2022).

3.10 Variables and Measurement Procedures

In this study the independent variables are remuneration, training and development, performance and reward and the dependent variable is organizational performance. In the questionnaires that answered by respondents, items to measure the construct dimensions (variable measured) adapted from previous studies. On-the-Job Training variable from Nawarathna, Abeykoon, & Harshani (2021).

Table 3.3: Variable and Measurement

Variable	Indicators	Scale
Effect of on-the-job training	Knowledge and procedures Ability to equipment: Proficiency of procedures Teamwork skills	Likert scale for measuring levels of agreement
Effect of coaching on job performance	Goal setting Problem-solving Decision-making Communication	Likert scale for measuring levels of agreement
Effect of job rotation on job performance	Motivation, Problem-solving Decision-making Skill Development	Likert scale for measuring levels of agreement
Job Performance	Customer satisfaction Productivity Efficiency Quality of Work	Likert scale for measuring levels of agreement

Source: Researcher, (2024).

3.11 Validity and Reliability of Instruments

3.11.1 Validity

Validity means to what extent that any measuring instrument truly measures up what it means to be measuring (Gani, 2020). In this study validity which was done by selection of the right data collection tool that is questionnaire survey and selection of the right sampling technique that is convenience sampling.

3.11.2 Reliability

In essence, reliability is fundamentally concerned with issues of consistency of measures (Quintão, 2024). Cronbach's alpha used as the tests for testing the reliabilities. With a result of 0.7 and above it is evident that there is acceptable level of internal reliability. Statistical reliability tests are used to assess the consistency, stability, and accuracy of measurements, data, or instruments. These tests help determine whether the data or measurements are trustworthy and can be used with confidence in various analyses or decision-making processes.

Table 3.4: Reliability Test Results

S/N	Variable	Number of Items	Cronbach's Alpha
1	On-the-job training	6	.869
2	Coaching	5	.739
3	Job rotation	6	.814
4	Performance	6	.873

Source: Data Analysis, (2024).

3.12 Research Ethics

Several aspects of research ethics are useful when conducting any study to ensure the rights of all the participants involved are protected as well as their welfare. Some of the important ethical concerns in this study are; Informed consent whereby

participants need to be informed the purpose, process, risks and benefits of the research study and voluntarily provide their written or verbal consent before engaging in the study and withdrawal is allowed at any period of the research. Privacy and identity preserved through ensured safety of their details, and name/code substitution, and use of information for research with no disclose to third parties.

CHAPTER FOUR

FINDING AND DISCUSSION

4.1 Overview

This chapter explains the findings and discussion on the Training and Development and its impact on employees' performance of Fire & Rescue Force Department in Tanzania. The results are presented under the research questions and specific aims of the research.

4.2 Response Rate

Total number of 271 questionnaires distributed to respondents, out of which 265 were fully completed and returned, representing a response rate of 97.7%. This high response rate was deemed sufficient for statistical analysis. According to Ali, (2021), a response rate exceeding 70% is considered excellent. Therefore, the 97.7% response rate achieved in this study was regarded as highly satisfactory, providing reliable data for analysis and supporting the development of valid conclusions.

4.3 Demographic Characteristics of Respondents

4.3.1 Gender Distribution

The gender distribution among respondents at Fire and Rescue Force Department indicated that majority are males by 58.1% while the female respondents were 41.9%. This gender balance has the implication that training and development programs require specification to both female and male employees' needs and gender respectively. It might be that sex-specific training methods may be required to make both genders find the programs useful. For instance, training programs need to make allowance for the fact that the ways men and women communicate might

not be the same, and that individual may have different preferences about the method of learning. Furthermore, a balance made between genders concerning delivery of training needs and equipment is beneficial to the department. This balance can yield better result in training because it increases the motivation of both male and female employees and make them to have the desire to apply the trained knowledge to enhance performance.

4.3.2 Age Distribution

The findings show age distribution of the respondent that 62.6 % of the respondents are aged 31-40 years with a smaller percentage of the youthful age group of only 18.1% Of those aged between 20-30 years. This age distribution suggests that the Fire and Rescue Force has a comparatively old workforce with good experience. Training programs should, therefore, be customized in order to fill any existing knowledge and skills deficits by the different age groups. To the younger workers, it could be taken as providing initial skills and career path development while to the older workers as providing mastery or specialist training which could improve on existing skills as well as providing for new technological or procedural development. These issues, therefore, sum up to improve on the total impact of training; and enable the enhanced job performance on the part of all age groups.

4.3.3 Educational Background

The education levels of respondents show that 36.6% of the respondents hold a diploma, 37.0% have a bachelor or master degree, 20.4% have a certificate and 6.0% have a master degree and above. Such diverse background in education indicates that employees have significantly different amount of background knowledge or

experience. This is a reality that must be provided for by training programs in an organization through the provision of different training contents. For instance, a prerequisite of training may be well suited for certificated trainers than that of an academic certificate holder. As a result of synchronizing the given training content with the educational levels of the employees, the Fire and Rescue Force can guarantee improved performance and satisfaction levels since the acquired training will be relevant to the employees' educational backgrounds.

4.3.4 Working Experience

The working experience of respondents shows that a significant proportion (43.0%) worked 1 to 5 years and (31.3%) has more than 10 years of working experience. This distribution also shows that there is a balance between the new and the experienced or the young and the old employees. The training and development programs should thus be planned in such a way that it addresses the new comer and also the senior train employee. Those who have lesser exposure should undergo training with the basics and get acquainted with the basics alone.

While, conversely, employees with more professional experience could use enhanced training that would include basic training and more novel issues, such as new technologies or effective management. A closer look at this approach supports the argument that possibilities of using training improvements should be intended to make sure that even fresh working talents within the corporation shall enjoy trainings, thus generating a pool of working gurus who shall apply the exercise outputs much better as a result of training provisions.

Table 4.5: Demographic Characteristics of Respondents

Variable	Category	Frequency	Percent%
Gender	Male	154	58.1
	Female	111	41.9
Age	20-30	48	18.1
	31-40	166	62.6
	41-50	34	12.8
	51-60	17	6.4
Education	Certificate	54	20.4
	Diploma	97	36.6
	Bachelor/Masters	98	37.0
	Master Degree	16	6.0
Working Experience	Less than 1 year	30	11.3
	1 to 5 years	114	43.0
	6 to 10 years	38	14.3
	More than 10 years	83	31.3
Total		265	100

Source: Researcher, 2024

4.4 Variable Descriptive Statistics Results

4.4.1 Descriptive Statistics on Effect of On-the-job Training on Employee Performance

The descriptive statistics from Table 4.2 provide a comprehensive overview of employees' perceptions regarding the effectiveness of on-the-job training at the Fire and Rescue Force. All the accumulated mean results of the six statements with concern to on job training are above the mid-point on the McGregor scale showing overall positive attitudinal disposition of the respondents towards the training intervention. The highest mean score of 3.77 for “I feel comfortable using equipment due to on job training” to endorse that the employees take on-the-job training as adequate to support them and that practice does well to accomplish the tangible aspect of equipment use. This was evidenced by a mean score of 3.75 for the item “My on-the-job training provided me with knowledge of the procedures” as it

affirms that the employees do feel well equipped with procedures that are operational essential.

On the other hand, the statement, which received the lowest mean rating of 3.62 on a 5-point scale for “I feel confident in my ability to perform procedures due to on-the-job training”, although is relatively higher than average may indicate some disparity that exists in the employee training confidence levels. This is also corroborated by a higher standard deviation (1.034) suggesting more variation in the level of confidence between students. The standard deviation as well, , which ranges between 0.855 and 1.034, implying that although the training yields a high average enhancement in the employee performance, the variability of how the employees perceive the impacts of the training may be affected by several factors including their experience, mode of learning, and attitude.

Table 4.6: Descriptive Statistics on Effect of On-The-Job Training on Employee Performance at the Fire and Rescue Force

	N	Minimum	Maximum	Mean	Std. Deviation
My on-the-job training provided me with knowledge of the procedures	265	1.00	5.00	3.7547	.85515
I feel confident in my ability to perform procedures due to on-the-job training	265	1.00	5.00	3.6226	1.03401
My on-the-job training helped me to become proficient in using equipment	265	1.00	5.00	3.6264	.98091
I feel comfortable using equipment due to on-the-job training	265	1.00	5.00	3.7660	.90766
My on-the-job training helped me to improve my teamwork skills	265	1.00	5.00	3.7170	.94503
I feel more confident working in a team due to on-the-job training	265	1.00	5.00	3.7585	.93853
Valid N (listwise)	265				

Source: Researcher, (2024).

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy which are vital in determining the nature of factor analysis is shown in table 4.3, along with the Bartlett's Test of Sphericity. Thus, the KMO value of .885 is considered excellent which means that the sample size is enough for the factor analysis and the result data are supposed to be quite reliable. Such a high KMO value indicates that the inter-variable correlations are sufficient enough to determine the factor analysis components.

In Bartlett's Test of Sphericity, the p -value is .000 which suggests that our correlation matrix is not an identity matrix and hence the variables are correlated. This result further affirms applicability of the data to factor analysis; these findings affirm that there are statistically cogent relationships among the variables on the on-jobs training and Employee performance. Therefore, collectively, these criteria validate the dataset for looking for factors that might influence the relationship between on-the-job training and employees' performance in order to have a valid and reliable factor analysis in the future.

Table 4.7: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.885
Bartlett's Test of Sphericity	Approx. Chi-Square	1587.281
	df	15
	Sig.	.000

Source: Researcher, 2024

The results in Table 4.4 illustrate the factor scores for the study's second hypothesis, On the job training and employee performance. These realization coefficients range from 0.86 up to 0.99, which means all of the items are positively contributing, a

testimony to the working factor on the job training effectiveness. The overall average is .614, the most picked up factor is “I feel comfortable using equipment due to on-the-job training” with the coefficient score of .944 which indicate that on job training is perceived as effective by the respondents. The other, relating to the other on-the-job training statements including the “My on-the-job training helped me to become proficient in using equipment,” (.894) and “My on-the-job training helped me to improve my teamwork skills,” (.931), also demonstrate high factor score, which clearly depict their importance in the development of required skills and confidence.

The next lowest factor score goes to “My on-the-job training taught me about the procedures.” The coefficient for this item is .785 being less than higher but still important factors could suggest that it is a little less influential. Receiving high factor scores on all items also show the on-the-job training program to be quite effective in enhancing skills, confidence and equipment usage and coordination skills among employees. This has lent credence to the theory that an orchestrated training program enhances different perspectives of the training.

Table 4.8: Factor Score for Effect of on-the-job training on Employee Performance

Responses	Factor scores	Status
My on-the-job training provided me with knowledge of the procedures	.785	Included
I feel confident in my ability to perform procedures due to on-the-job training	.864	Included
My on-the-job training helped me to become proficient in using equipment	.894	Included
I feel comfortable using equipment due to on-the-job training	.944	Included
My on-the-job training helped me to improve my teamwork skills	.931	Included
I feel more confident working in a team due to on-the-job training	.881	Included

Source: Researcher, (2024).

4.4.2 Effect of Coaching on Employee Performance at Fire& Rescue Force

Table 4.5 show descriptive statistics based on aspects of coaching and the impact of same on Fire & Rescue Force employee performance. All mean values for the statements are above midpoint showing mostly positive perception towards coaching. The results indicate that coaching has a strong positive effect in increasing motivation since the mean of the statement “I feel more motivated to achieve my goals due to coaching” was 3.79. This is further supported by the high standard deviation of 1.01 which indicates that there is high variation in the manner the employees exercise motivation through coaching.

Table 4.9: Effect of coaching on Employee Performance at Fire& Rescue Force

	N	Mean	Std. Deviation
My coach helps me to set clear and achievable goals	265	3.6566	.93288
I feel more motivated to achieve my goals due to coaching	265	3.7925	1.01052
My coach provides effective guidance on problem-solving	265	3.6566	1.05843
I feel more confident in my ability to solve problems due to coaching	265	3.7208	1.07544
My coach supports my decision-making abilities	265	3.5849	1.09465
I feel more empowered to make decisions due to coaching	265	3.5094	1.17780
My coach communicates clearly and effectively	265	3.5170	1.20632
I feel more confident in my communication abilities due to coaching	265	3.5208	1.15820
Valid N (listwise)	265		

Source: Researcher, (2024).

Naturally in this case, the statement with the lowest mean score of 3.52 refers to the coach’s communication; however, that is positive in signifying that they perceived communication as being effective within their coaching interactions. The lower alphas were further supported by moderately high SDs that ranged from 0.93 to 1.21 across items suggesting that coaching programs differ from one employee to another.

These results imply that, contrary to Sabaté's (2003) assertion, coaching is typically beneficial across several areas of worker effectiveness, such as setting objectives, motivation, dilemmatic solving, decision-making, and developing communicational abilities.

In the measurement of effect of coaching on the employee performance, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity are presented in Table 4.6. The KMO value of .873 is regarded as excellent, this shows that the size of the sample is convenient for performing the factor analysis, and the data is justified to extract the factors. This high KMO value implies that the inter-correlations among the variables concerning coaching are high, so as to extract factors.

The results of Bartlett's Test of Sphericity indicate that the Chi-square observed "or computed "value is equal to 1608.187 and the probabilities are less than .001 signifying that the correlation matrix is not equal to an identity matrix: therefore, there are some relationships among the variables. This significance confirms the suitability of factor analysis to explaining the relationship between various aspects of coaching and employee performance. Combined, these give credence to the view that the current dataset is appropriate for the determination of factors causally linked to the efficiency of the coaching processes.

Table 4.10: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.873
Bartlett's Test of Sphericity	Approx. Chi-Square	2553.566
	df	28
	Sig.	.000

Source: Researcher, (2024).

These results based on factor analysis of the effect of coaching on the employee performance are summarized in the below table 4.7 The results revealed high factors on all items, which shows that all of them are very relevant in enhancing the effectiveness of coaching. This is constant with a factor of .899 corroborating the notion that coaching enhances communication abilities.

Table 4.11: Factor Score for Effect of Coaching on Employee Performance at Fire & Rescue Force

Responses	Factor scores	Status
My coach helps me to set clear and achievable goals	.870	Included
I feel more motivated to achieve my goals due to coaching	.875	Included
My coach provides effective guidance on problem-solving	.855	Included
I feel more confident in my ability to solve problems due to coaching	.811	Included
My coach supports my decision-making abilities	.891	Included
I feel more empowered to make decisions due to coaching	.873	Included
My coach communicates clearly and effectively	.885	Included
I feel more confident in my communication abilities due to coaching	.899	Included

Source: Researcher, (2024).

Likewise, “my coach boosts my decision-making skills”, and “my coach act as good communicator” are also highly factor loadings (.891 and .885 respectively) indicating their effects on decision making and communicating. The lower but still relatively higher factor loading of ‘Due to coaching, I feel more confident in my ability to solve problems’ (.811) points toward the fact that, albeit important this aspect is not as highly regarded as others are. All these high factor scores combined point to the fact that coaching positively impacts motivation, problem solving, decision making and communication, and hence facilitates better performance of the Fire & Rescue

Force employees.

4.4.3 Effect of Job Rotation on Employee Performance at Fire & Rescue Force

This study likewise shows that job rotation has various effects on the employee performance at Fire & Rescue Force as summarized in Table 4.8 above. The mean scores of the statements vary from 3.50 to 3.77 that implies that the employees have a relatively positive attitude towards job rotation. On average, Respondents analyze job rotation more positively, with the highest value of the mean, which is equal to 3.77, for the statement “Job rotation has helped me to develop new skills.” For the same reasons, statements such as, “I believe I am more equipped to address difficult problems after participating in job rotation” and “Job rotation has motivated me to acquire more skills” also received higher mean scores indicating evidence of increased problem-solving confidence and motivation to learn after job rotation.

In contrast, “I feel more motivated to take on new challenges and responsibilities after participating in job rotation” had the lowest mean of 3.50 agreeing to the statement indicating that though job rotation is generally good its positive impact is not strongly felt in terms of motivation for new challenges. The fact that all the standard deviations, ranging from 1.02 to 1.18 illustrated that there exist a lot of variability in what employees saw regarding job rotation, this shows that while some may have had a bad experience doing the job rotation others may have had an excellent experience.

Table 4.12: Effect of Job rotation on employee performance at Fire & Rescue Force

	N	Mean	Std. Deviation
I feel more motivated to take on new challenges and responsibilities after participating in job rotation.	265	3.5019	1.16815
I am better able to identify problems and come up with solutions after participating in job rotation.	265	3.7396	1.05355
rotation has helped me to develop a more strategic approach to decision- Job making	265	3.5774	1.18172
Job rotation has helped me to identify areas where I need further skill development	265	3.5509	1.14078
job rotation has helped me to develop a more strategic approach to decision-making	265	3.6642	1.02082
I feel more confident in my ability to solve complex problems after participating in job rotation.	265	3.5509	1.12068
My leader promotes a positive and collaborative work environment	265	3.6566	1.01830
Job rotation has helped me to develop new skills.	265	3.7736	1.04522
Job rotation has increased my motivation to learn new skills.	265	3.7396	1.06784
Valid N (listwise)	265		

Source: Researcher, (2024).

Table 4.9: KMO Measure of Sampling Adequacy and Bartlett's Test of Sphericity for Rotational effect on performance in this study, the effect of rotating jobs on rates of performance is accounted for by the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy, and Bartlett's Test of Sphericity. The result of the KMO (.915) shows that this sample size and the quality of data are good enough for factor analysis to be applied. As shown by this high KMO value, the job rotation variables have high inter-correlations, which can positively influence the subsequent factor extraction. The Bartlett's Test of Sphericity is significant at 0.000 indicating that the correlation matrix is different from an identity matrix and there exist significant correlation among the variables. This significance justifies the use of factor analysis in order to explain the impact of job rotation. The results confirm that the data set is

appropriate for establishing relationships that may be masked because of job rotation impacts on employee performance.

Table 4.13: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
Bartlett's Test of Sphericity	Approx. Chi-Square	2195.578
	df	36
	Sig.	.000

Source: Researcher, (2024).

Tables 4.10 shows the factor scores of the impact of job rotation on employee performance in different aspects. All items have high factor score which emphasizes the tangible contribution of the factors in the success of job rotation. The highest factor load being .817 is as “Job rotation has helped me to develop a more strategic approach to decision-making” This thus show that this is an important area affected by job rotation. Other statements with high factor scores were those that referred to problem identification and problem solving after job rotation, which has been rated.806 and.757 respectively.

These findings emphasize that job rotation improves problem solving and decision-making skills. The least value of the factor is “Job rotation has increased my motivation to learn new skills” which a reasonable figure of.559 but is still impressive in some way fewer than the other factors. On the whole, high factor scores substantiate the proposition that job rotation has a favorable impact on the facets of performance, including skill acquisition, problem-solving capabilities, strategic planning, and consequently global performance of the personnel in the Fire & Rescue Force.

Table 4.14: Factor Score for Effect of Job Rotation on Employee Performance

Responses	Factor scores	Score
I feel more motivated to take on new challenges and responsibilities after participating in job rotation.	.712	Included
I am better able to identify problems and come up with solutions after participating in job rotation.	.806	Included
rotation has helped me to develop a more strategic approach to decision- Job making	.740	Included
Job rotation has helped me to identify areas where I need further skill development	.667	Included
job rotation has helped me to develop a more strategic approach to decision-making	.817	Included
I feel more confident in my ability to solve complex problems after participating in job rotation.	.757	Included
My leader promotes a positive and collaborative work environment	.751	Included
Job rotation has helped me to develop new skills.	.643	Included
Job rotation has increased my motivation to learn new skills.	.559	Included

Source: Researcher, (2024).

4.4.4 Employees' Performance

Data on various aspects of the employees' performance are presented in table 4.11 in relation to the strengths and areas of improvement. The mean scores of 3.52 – 3.72 hence it can be perceived as having moderate to positive performance. The results for “I actively seek ways to contribute to process improvement and optimization has a mean score of 3.72 indicating that the staff tries to improve the operations. On the other hand, “I rarely receive positive feedback,” has an overall score of 3.52 that means there can be a scope to appreciate employees. A score of 3.64 for “I often meet and go beyond what is expected of me in terms of customer expectations” was just a decimal shy of a score of 3.64 for “I sometimes fail to meet customer expectations”.

Other scores are I am good at concentrating; value = 3.71 Confidence date = 3.71 The least scoring statements imply that attention to detail is a relative strength.

Nonetheless, high mean scores of around 3.55 to 3.64 for students struggling with the production of high-quality work and meeting deadlines point to areas of potentially focused development. Revenue standard deviations vary from 1.07 to 1.19 – that is, the variability of SAP across employees indicates the importance of appropriate support to address different performance issues.

Table 4.15: Employees' Performance

Response	N	Mean	Std. Deviation
I rarely receive positive feedback	265	3.5245	1.14827
I struggle to meet the needs and expectations of customer	265	3.6377	1.19218
I often exceed the needs and expectations of customers	265	3.6340	1.19261
I generally work efficiently and effectively	264	3.6250	1.07136
I am skilled at delegating tasks and working collaboratively to increase efficiency.	264	3.5682	1.16471
I consistently find ways to improve processes and increase efficiency.	262	3.7214	1.07329
I struggle to produce high-quality work.	262	3.6107	1.16180
I consistently adhere to established procedures or protocols.	262	3.6679	1.13142
I struggle to produce high-quality work.	262	3.5725	1.19084
I struggle to complete tasks within the required time frame	262	3.5534	1.17240
I am skilled at managing competing demands and priorities	262	3.6489	1.11020
I have strong focus and attention to detail	256	3.7188	1.06963
Valid N (listwise)	256		

Source: Researcher, (2024).

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity, which facilitate the test for factor analysis on the employee performance data are displayed in the Table 4.12 as follows. The KMO value is .903

which is highly appropriate for factor analysis as the number of samples in the study is good. This fact indicates a high correlation between the performance variables; thus, factor extraction makes sense.

The Chi-square of Bartlett's Test of Sphericity is 932.277, and at $p < .05$ the degree of freedom is 61, thus implying that correlation matrix is not an identity matrix and that most of the variables are significantly related to one another. This significance proves the suitability of employing factor analysis in determining other factors that influence performance. The findings thus support the conclusion the employing the dimensions of performance allow examination of factors that promotes or slow down efficiency or effectiveness of employees.

Table 4.16: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.903
Bartlett's Test of Sphericity	Approx. Chi-Square	3280.208
	df	66
	Sig.	.000

Source: Researcher, 2024

Table 4.13 establishes factor scores of employee performance measures. The self-assessment score for the factor which states “I consistently find ways to improve processes and increase efficiency” is pointed toward as the highest with the factor score to the tune of .865, implying ruled strength towards performance. The additional high factor scores for “I often feel that I can't do my best” and ‘I always follow rules or standard operating procedures”, respectively .856 and .843 also show that these aspects are critical in the performance of the construction workers.

Table 4.17: Factor Score for Employee Performance

Responses	Factor scores	Score
I rarely receive positive feedback	.821	Included
I struggle to meet the needs and expectations of customer	.849	Included
I often exceed the needs and expectations of customers	.712	Included
I generally work efficiently and effectively	.752	Included
I am skilled at delegating tasks and working collaboratively to increase efficiency.	.804	Included
I consistently find ways to improve processes and increase efficiency.	.865	Included
I struggle to produce high-quality work.	.754	Included
I consistently adhere to established procedures or protocols.	.843	Included
I struggle to produce high-quality work.	.856	Included
I struggle to complete tasks within the required time frame	.816	Included
I am skilled at managing competing demands and priorities	.708	Included
I have strong focus and attention to detail	.585	Included

Source: Researcher, (2024).

Lower factor scores, for example a mean of .585 for the item “I have strong focus and attention to detail,” show that while focus is significant, it may not be as significant as other indices of performance. The variation in factor scores also means that although employees are proficient and talented in a few of the factors, there are still weaknesses that seem to require specific approaches towards optimization of performance.

4.5 Variable Means and Correlation Analysis Results

Table 4.14 shows the Pearson correlation coefficients between On-the-Job Training, Coaching and Job Rotation. We find the coefficients to be statistically significant at 0.01 levels, which clearly show that these relations are strong between these variables. On-the-Job Training and Coaching have a rho value = .714 that indicates the two positively related which means as on-job training increases, the perceived

training effectiveness on coaching also increases. Likewise, On-the-Job Training and Job Rotation also have a positive correlation coefficient ($r = .616$) which means that enhancements of this job training are connected with the enhancement of the outcomes for the job rotation.

The Coaching and Job Rotation also have the highest correlation coefficient of .725 which indicates that communication on job standards and ongoing support the for the benefit of job rotation is highly correlated. These high correlations point to the fact that most of these developmental practices are not mutually exclusive and the effect they produce as gauged by enhanced performance of employees is mutually reinforcing.

Table 4.18: Variable Means and Correlation Analysis Results

		On-the-Job Training	Coaching	Job rotation
On-the-Job Training	Pearson Correlation	1	.714**	.616**
	Sig. (2-tailed)		.000	.000
	N	265	265	265
Coaching	Pearson Correlation	.714**	1	.725**
	Sig. (2-tailed)	.000		.000
	N	265	265	265
Job rotation	Pearson Correlation	.616**	.725**	1
	Sig. (2-tailed)	.000	.000	
	N	265	265	265
**. Correlation is significant at the 0.01 level (2-tailed).				

Source: Researcher, 2024

4.6 Multiple Regression Analysis

Table 4.15 shows Regression Model Summary on the relationship between On-the-Job Training, Coaching and Job Rotation to Job Performance. The presented model has an $R = .780$ which proves the fact that there is positive and high relationship between the predictors and Job performance. The R square value of .609 means that

On-the-Job Training, Coaching and Job Rotation can predict and explain 61% of the total variation in job performance.

The Adjusted R Square of 0.604 makes allowance for the number of predictors in the model which adds magnitude on the reliability of the model. There is a Standard Error of the Estimate at 0.58945 meaning the average difference between the observed and the predicted job performance scores. This leads to a positive conclusion on the overall model fitness and On-the-Job Training, Coaching, and Job Rotation as important factors predicting variation in job performance amongst employees.

4.5.1 Regression Model Summary

Table 4.19: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.780 ^a	.609	.604	.58945
a. Predictors: (Constant), On-the-Job Training, Coaching, Job rotation				

Source: Researcher, 2024

4.6.1 Regression Coefficient for Regression Model

Specifically, Table 4.16 shows the regression coefficients of the model for predicting Job Performance. The constant term ($B = 0.576$) is the degree of job performance obtained when all predictors are at a mean value. On-the-Job Training has a non-significant coefficient ($B = 0.036$, $p = .572$) hence; it does not explain variations in job performance in this model. On the other hand, Coaching showed a positive and significant regression coefficient of 0.146; $p = 0.023$, thus signifying Coaching as a factor that improves on job performance. Coefficient regression for Job Rotation also

came up with positive result with a coefficient of 0.655; $p < 0.001$.

Table 4.20: Regression Coefficient for Regression Model

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	.576	.174		3.304	.001
	On-the-Job Training	.036	.063	.032	.566	.572
	Coaching	.146	.064	.148	2.283	.023
	Job rotation	.655	.058	.645	11.227	.000
a. Dependent Variable: Job Performance						

Source: Researcher, 2024.

Standardized effects (Beta) reveal that Job Rotation has the largest impact on the job performance (.645) than the other independent variables, the second largest being Coaching (-.148). With regards to On-the-Job Training, we got an almost negligible value, which implies that although factor might be present, it has negligible impact on this case of job performance as compared to other elements like Coaching and Job Rotation.

4.6.2 ANOVA Results for Regression Model

The results of the ANOVA for the regression model predicting Job Performance are given in Table 4.17. An F-statistic of 135.281, smaller the better, and a significance value of .000 suggest that the overall regression model is statistically significant and that On-the-Job Training, Coaching, and Job Rotation jointly account for a significant proportion of the variation in job performance. The model 's Sum of Squares for Regression is equal to 141.009 which implies the variation accounted by the predictors and the Residual Sum of Squares is equal to 90.684 which means the

variation not accounted by the model.

Table 4.21: ANOVA Results for Regression Model

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	141.009	3	47.003	135.281	.000 ^b
Residual	90.684	261	.347		
Total	231.693	264			
a. Dependent Variable: Job Performance					
b. Predictors: (Constant), On-the-Job Training, Coaching, Job rotation					

Source: Researcher, 2024

These Mean Square values indicate the degree of variance within and between the Regression Model's predicted and actual job performance scores which are as follows-Regression-47.003 & Residual- .347. Overall, these results provide support that using the regression model is useful for predicting job performance given the significance of the predictors as part of improving employee performance.

4.7 Discussion of the Findings

4.7.1 Effect of On-the-Job Training on Employee Performance at the Fire and Rescue Force

The analysis of on-the-job training at the Fire and Rescue Force reveals that this training approach has a significant impact on employee performance. The descriptive statistics indicate that on-the-job training is associated with improved knowledge of procedures, proficiency in using equipment, and enhanced teamwork skills. These findings align with previous research that underscores the effectiveness of practical training in real-world settings. For instance, a study by Mushi and Mdee (2020) in Tanzania highlighted that on-the-job training significantly improves employees' operational skills and job performance in public sector organizations.

Similarly, Ngoma and Rwakiyingo (2021) found that hands-on training enhances employees' technical skills and confidence, leading to better performance in the Tanzanian public sector. The findings also underscore that on-the-job training fosters employees' confidence in their roles and their comfort with equipment. This is consistent with the work of Hossain et al. (2018), who argue that training within the actual work environment allows employees to develop practical skills and adapt to their roles more effectively. Additionally, the research by Kihoro *et al.* (2020) supports this, showing that on-the-job training enhances job performance by providing employees with relevant, real-time experience, which boosts their confidence and effectiveness in their roles.

However, there is a positive relationship between on-the-job training and teamwork, something critical for organization such as the Fire and Rescue Force. This is so because the study conducted by Nkwabi et al. (2021) on the situation in Tanzania showed that the training programs that incorporate team work enhance co-ordination and co-operation of all concerned employees. In the same way, a study by similarly indicates that teamwork skills are another core improvement teamwork skills are one of the other major benefits of on the-job training as a key training method that is essential in a collaborative workplace such as the Fire and Rescue Force.

Moyo et al. (2021) identified and characterized that training programs which enhance the understanding of team dynamics and collective problem solving directly enhance employee's coordination and cooperation leading them to deliver optimal job performance. This is further supported by Aina et al. (2021) who pointed out that more training by hands promotes team work, to increase the organizational

productivity. Alfred Marsh's Human Capital Theory, backs up this observation that on the job training enhances Fire and Rescue Force's employee efficiency stating that investment in human capital—the acquisition of better and necessary skills as well as knowledge of value within the organization helps to achieve optimum operational efficiency as well as promotes broad teamwork.

4.7.2 Effect of Coaching on Employee Performance at the Fire & Rescue Force

This analysis of coaching practice for the Fire & Rescue Force reflects a high positive correlation with the overall performance of employees. Coaching does not only involve goal setting in a business but also impresses on the employee better problem-solving skills, communication skills and confidence in arriving at decisions. These results are in consonance with other previous research representing the power of coaching in enhancing general worker productivity. Coaching also enhances job performance by affording employee an opportunity to seek intervention from a professional trainer/ coach in order to solve problems that they encounter in their daily activities which is in line with the finding of Karani et al. (2020).

Teaching in the setting of Fire & Rescue Force has helped employees improve their technical skills which are paramount for effectiveness in pressure situations. Furthermore, coaching promotes the level of employees' motivation as well as their sense of power. The same is in concord with the Mutua et al. (2020) who conducted a study that accounts that coaching is fundamental for enhancing employees' intrinsic motivation. Through the differentiation of the career goals to the employees and working on the areas of the latter's weakness, coaching increases their participation and effectiveness. This view is also confirmed by Mwambona and

Kihoro (2021) who indicated that coaching in public organization enhances commitment and motivation among employees that will see their job performance improve.

More so, the study again emphasizes the impact of coaching on the kind of decision-making skills and communication. Time-sensitive decisions are inevitable under conditions of high-stake, and hence coaching fosters effective timely decisions across tactical including the Fire and Rescue Force. Mwanjala *et al.* (2021) reported that coaching leads to improved confidence in decision making by building coaching cultures to support reflective practice and the setting of goals. In the same manner, the study By Mlowe *et al.* (2022) has shown that communication skills are perhaps one of the most useful for the purpose of team work, and that coaching is useful hence justified in enhancing these communication skills. These findings are relevant to the Fire & Rescue Force whereby communication is central to force functionality and operations.

Moreover, the study implies that coaching has not only a personal benefit but also stresses that the personnel develop a collaboration culture within the organization. This observation is supported by research done by Ndalul and Gondo (2021) that reveals that coaching fosters feedback and learning in organizations thus increasing the cohesion and productivity of the total organizational team. In regard to Fire & Rescue Force, the presence of such a positive culture is essential for sustaining such levels of performance given the fact that many situations present before force require optimization of group work, decision-making and problem-solving abilities. Nziku *et al.* (2020) agrees with this by demonstrating that through coaching, trust and

communication openness are fostered hence improving employees' engagement and organizational commitment.

Thus, besides increasing the effectiveness of the performance of individuals, coaching plays a role in the construction of a favorable organizational climate. As observed by Kiprotich and Mwangi (2021) in their study of Tanzanian public sector organizations, coaching encourages very much teamwork leading to willingness of the employees to share information and help. Such a culture of work is imperative in the complex organizations' working environment particularly on aspects of the Fire & Rescue Force that require the collaboration of different individual and groups with an aim of accomplishing organizational goals. The Human Capital Theory stands in the result that established that coaching improves the performance of employees at the Fire & Rescue Force revealing that the investment focused on skills, problem solving, and communication results in growth in personal and group productivity and organizational culture that is imperative for high risk decisions.

4.7.3 Effect of Job Rotation on Employee Performance at the Fire & Rescue Force

More the study again emphasizes the impact of coaching on the kind of decision-making skills and communication. Time-sensitive decisions are inevitable under conditions of high-stake, and hence coaching fosters effective timely decisions across tactical including the Fire and Rescue Force. Mwanjala *et al.* (2021) reported that coaching leads to improved confidence in decision making by building coaching cultures to support reflective practice and the setting of goals. In the same manner, the study By Mlowe, *et al.*, (2022) has shown that communication skills are perhaps

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Furthermore, there is a fact that job rotation has great impact on the skills. Thus, the staff obtains new competencies when working in different positions that can improve their performance and develop their motivation for professional growth additionally. As mentioned by Mollel, *et al.*, (2020), through job rotation, this makes the organizations offers continuous learning environment where the employees are willing to develop their capabilities to perform many tasks. In like manner, Komba and Mwaikambo (2021) noted that there are linked benefits in that job rotation enhances continuous learning and career development and thus enhance the organizational performance through rising the general skill level of workers.

Moreover, the study carried out indicates improved employee satisfaction and commitment to work due to practice of job rotation. Since the employees are able to circulate within the station, they develop a strong sense of responsibility and thus high morale. According to Kimambo and Mkangara (2020) job rotation helps decrease boredom hence increase job satisfaction since individuals gets to realize what he or she can do in other department of the organization. It also results into improved performance since all people who are in a team and the organization as a whole have the desire to work hard in order to get what they want.

As Human Capital Theory also stipulates that preparing employees for different posts makes them more efficient when transferred to the Fire & Rescue Force, the results reveal that job rotation contributes positively to employees' performance. When employees change from one task to another, they are also exposed to various functions in an organisation, which makes them solve problems efficiently and effectively while motivating them (Mollel, *et al.*, 2020; Komba & Mwaikambo,

2021). This will better support Human Capital Theory which posits that investing in human capital yields a higher rate of reward for any organization. Using external training to serve different positions also enhances job satisfaction due to the lack of boredom resulting from providing the employees an opportunity to gain diverse competencies making them more committed to organizational of goals and responsibilities (Kimambo & Mkangara, 2020). These findings are important for the Fire & Rescue Force, where diverse involvement and increased motivation are necessary for appropriate managing of crucial situations.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Overview

This chapter provides a summary of the primary findings, a conclusion drawn from these findings as well as recommendations. Not only it identifies the key insights but also it spells out courses of action, it tells us what has to be done and who has to do it.

5.2 Summary

The study focuses on demonstrating the effectiveness of on job training (OJT) on performance of workers in the Fire and Rescue Force Department. This study shows that OJT broader and sharpens the employee's practice skills in response to actual-life interceding situations because it provides on the job experience that ties in with job obligations. This form of training enables the use of skills learnt in the course in solving practical real-life problems since they imply on job training hence helping the employees in performing well and efficiently in emergency situations. Prior studies support these claims including the idea that structured programs of OJT enhance competency level and job satisfaction.

When it comes to the Fire and Rescue Force, the adoption of OJT to the training system is important in to produce top-quality employees who are capable of dealing with the various tasks in the organization. The research also explores the effects of coaching towards lifting employee performance at the Fire and Rescue Force. Coaching focuses on and offers performance enhancement solutions based on the

preferences of the individuals and ongoing professional growth. The results show that coaching has a positive effect on skill, motivation, and job content among employee, increasing satisfaction leading to higher performance outcomes. Coaching is proved to be useful in building leadership behaviors, decision-making proficiency and emotional capital which are all sufficient for emergency management. Some empirical evidence for these conclusions derived from the local context and indicates that where coaching interventions are personalized, employees of the Fire and Rescue Force report enhanced levels of job performance and satisfaction.

The second concept of study is job rotation in relation to its effect on the performance of the employees. The study finding indicate that, when practicing job rotation, the movement of the employees from one position to another develops them into versatile problem solvers. Through accumulating experiences while performing a number of roles, the employee becomes flexible and knowledgeable in other areas other than her or his specific position, which enhances efficiency and effectiveness of employees when dealing with emergent situations. The study also establishes that job rotation is effective in increasing engagement and operational competence of most organizations. These findings are supported by international and local research in that job rotation produces a flexible and competent workforce to meet multiple challenges within the Fire and Rescue Force.

5.3 Implication of the Study

Overall, the study reveals that there is need to develop proper training and development in order to improve employee performance in the Tanzania's FRF. The managers are urged to entail actions; on job training, development, and mentoring

alongside with job lanes with an aim of enhancing their proficiency. Organizational learning can help managers develop expertise and leadership skills, and improve job performance of their subordinates. This way, ensuring that these training methods are well integrated and aligned with overall organizational objectives will produce a fitter and more motivated array of employees, to thus enhance emergency response capacity, as well as organizational performance all around.

The study therefore creates awareness among the practitioners in human resources and organizational development to engage in the formulation and implementation of training programs that involve on job training, coaching and job rotation. Such programs shall be designed to fit performance requirements and training needs of the employees in the Fire and Rescue Force. There is also the need for practitioners to cultivate practices that assess the use of these training techniques and the degree of performance improvement. Incorporation of these elements in training strategies will enable the practitioners to shape a more skilled, and high performing workforce thereby increasing the operational efficiency of the Fire and Rescue Force.

According to the study it is recommended that employees in the Fire and Rescue Force promote the training and development programs offered by the organization. Hereby, on the job training, coaching and job rotation present numerous opportunities for personal and professional development. These opportunities are embraced to allow the employees to sharpen their skills, as well as fit into numerous roles in the place of work. Through active participation in the development of their, employees should be satisfied with their jobs, productivity enhanced thus improving on the organizational performance of mission.

5.4 Conclusion

Effect of On-the-Job Training on Employee Performance

The results show that workplace education delivers substantial upgrades in staff performance throughout Tanzanian Fire and Rescue Force operations. Employees who participate in practical work-based experiences acquire fundamental technical abilities with operational competency that helps them perform effectively in emergency situations. Through practical learning staff can implement classroom knowledge in actual emergency situations which leads to their better performance during critical moments.

On-the-job training enables employees to develop continuous learning skills as well as the ability to adopt new technologies and techniques that firefighters and paramedics use for their operations. The regular training received by workforce members builds their confidence while enhancing their work competence which directly leads to fewer mistakes and better operational performance. The method also guarantees that each person working under these conditions is fully prepared for their responsibilities. Extended research demonstrates how organizations must invest in permanent training solutions to create highly skilled personnel. Well-designed on-the-job training efforts improve employee job performance at an individual level and trigger organizational success for the Tanzanian Fire and Rescue Force.

Effect of Coaching on Employee Performance

Employee performance at the Fire and Rescue Force depends significantly on coaching practices. Proper mentoring by experienced mentors leads to better skill development in employees at the Fire and Rescue Force regarding leadership and

communication and problem-solving abilities. Coaching delivers customized support which helps staff acquire richer understanding of their work duties. Through coaching the department creates conditions for employees who build confidence and motivation which leads them to advance their work performance. Coaching improves employee engagement and job satisfaction because professionals get helpful feedback that lets them develop their abilities while working on their areas for improvement.

The increased level of confidence drives employees to perform better while handling complicated emergency rescue situations. Through coaching organizations can facilitate knowledge sharing which enables superior personnel to educate newer members with vital knowledge. The process drives continuous implementation of best practices which results in maintaining high organizational performance standards. The Fire and Rescue Force can establish an organized coaching approach to build an environment of continuous growth which results in enhanced emergency preparedness along with superior organizational results.

Effect of Job Rotation on Employee Performance

Job rotation functions as a critical factor which helps improve performance standards for Fire and Rescue Force employees. By rotating employees across different roles and responsibilities, the organization fosters versatility and adaptability among its workforce. Employee skills expand through job rotation because they learn to tackle multiple elements of fire and rescue work. The practice stops work-related monotony and protects employees from burnout since it maintains their workplace engagement and motivation levels without limitation.

Job rotation encourages collaborative work between employees since personnel gain insights into various organizational roles through their experiences. Workers who encounter multiple assignments acquire better decision-making competencies along with problem-solving methods therefore becoming more adept during emergencies. Through job rotation management discovers employees' abilities and limitations which help them place workers at their most efficient roles. Scientific research demonstrates that implementing properly designed job rotation improves the efficiency along with effectiveness of the entire workforce. The Fire and Rescue Force can build an emergency-ready team consisting of flexible skilled members through job rotation as their main training strategy.

5.5 Recommendations

To maximize the effectiveness of training and development at the Fire and Rescue Force, the following recommendations are proposed:

Implement Comprehensive Training Programs: Organize and support comprehensive and flexible on the job training and coaching as well as job enlargement and rotation for the employees.

Foster a Learning Culture: Foster a process of developmental graduate learning and professional practice commitment through consistent feedback/accomplishment recognition and skill advancement.

Evaluate Training Effectiveness: Ensure that flow of training and development programs is regularly evaluating in relation to the employees' overall performance with the backdrop of achieving its organizational objectives.

Support Career Development: Provide timely career map to the employees, with training programs so as to increase employees' satisfaction and reduce turnover.

5.6 Limitations of the Study

Single Organization Focus: The study was administered in one organization and hence the findings cannot be generalized to other organizations or to other sectors of the economy. **Cross-Sectional Design:** This cross-sectional research paradigm also limits the possibility of attesting causality regarding the training and performance results. **Uncontrolled Variables:** Sources of bias include individual experience and education level, and tenure of the trainees and trainers trained, the raw effects captured by the training studies may therefore be distorted.

5.7 Area for Future Studies

Comparative Studies: Future Studies should study in other organizations or sectors in order to get more generalized results.

Longitudinal Studies: Future Studies should employ longitudinal designs to differentiate between the long run effects of a new training and development program on the performance of employees.

Impact of Training Types: Future Studies should determine the comparative impact of training and development techniques to performance.

Influence of External Factors: Future Studies should discuss how factors external to the training process, for example organizational modifications or developments in the environment in which an organization is located impacts on the accessibility and effectiveness of training to influence employee performance.

REFERENCES

- Abbott, C., & McKinney, V. R. (2013). *Research design*. In P. Redmond & J. Walker (Eds.), *Publications manual* (pp. 78-95). Boston, MA: Academic Press.
- Abu-Shawish, R. K., Romanowski, M. H., & Amatullah, T. (2021). Policy borrowing and developing knowledge economies in GCC countries: A critique from a Human Capital Theory perspective. *Asia Pacific Education Review, 22*, 77-8
- Aina, T., Omondi, E., & Mugambi, S. (2021). On-the-job training and its effect on employee teamwork and performance in the public sector. *African Journal of Public Administration, 25*(2), 102-115.
- Akpalu, R., & Markom, M. (2022). The impact of training and development on employee performance. *Journal of Human Resource Management, 12*(3), 45-62.
- Ali, F., Ciftci, O., Nanu, L., Cobanoglu, C., & Ryu, K. (2021). Response rates in hospitality research: An overview of current practice and suggestions for future research. *Cornell Hospitality Quarterly, 62*(1), 105-120.
- Alita, D., Putra, A. D., & Darwis, D. (2021). Analysis of classic assumption test and multiple linear regression coefficient test for employee structural office recommendation. *IJCCS (Indonesian Journal of Computing and Cybernetics Systems), 15*(3), 295-306.
- Amadi, K. B. (2019). The impact of employee training and development on organizational performance: A case study of a Nigerian bank. *Journal of Management Studies, 8*(4), 1-12.

- Carlbäck, M., Nygren, T., & Hägglund, P. (2024). Human resource development in restaurants in Western Sweden—a human capital theory perspective. *Journal of Human Resources in Hospitality & Tourism*, 23(2), 289-314.
- Chan, J. Y. L., Leow, S. M. H., Bea, K. T., Cheng, W. K., Phoong, S. W., Hong, Z. W., & Chen, Y. L. (2022). Mitigating the multicollinearity problem and its machine learning approach: a review. *Mathematics*, 10(8), 1283.
- Diakonikolas, I., Kane, D. M., & Pensia, A. (2020). Outlier robust mean estimation with subgaussian rates via stability. *Advances in Neural Information Processing Systems*, 33, 1830-1840.
- Drolet, M. J., Rose-Derouin, E., Leblanc, J. C., Ruest, M., & Williams-Jones, B. (2023). Ethical issues in research: Perceptions of researchers, research ethics board members and research ethics experts. *Journal of Academic Ethics*, 21(2), 269-292.
- Enders, C. K. (2022). *Applied missing data analysis*. Guilford Publications.
- Gama, P., & Chacha, R. (2020). Enhancing problem-solving and strategic decision-making through job rotation: Insights from Tanzanian public organizations. *Journal of African Human Resource Management*, 9(2), 134-151.
- Gani, A., Imtiaz, N., Rathakrishnan, M., & Krishnasamy, H. N. (2020). A pilot test for establishing validity and reliability of qualitative interview in the blended learning English proficiency course. *Journal of critical reviews*, 7(05), 140-143.
- Grant, A. M., & Hartley, M. (2020). The developmental nature of workplace coaching: Evidence for long-term growth. *Journal of Coaching and Mentoring*, 19(2), 112-126.

- Griffin, R. W., Moorhead, G., & Karren, R. J. (1981). *Organizational behavior - managing people and organizations*. Boston, MA: Cengage Learning.
- Gupta, R., & Verma, P. (2020). Enhancing employee performance through on-the-job training: A study of experiential learning. *International Journal of Management Studies*, 47(4), 321-339.
- Hanson, T., Jinks, A., & Wallace, L. (2005). *Analyzing research data*. Chicago, IL: University of Chicago Press.
- Huntington-Klein, N. (2021). *The effect: An introduction to research design and causality*. Chapman and Hall/CRC.
- James, G., Witten, D., Hastie, T., Tibshirani, R., & Taylor, J. (2023). Linear regression. In *An introduction to statistical learning: With applications in python* (pp. 69-134). Cham: Springer International Publishing.
- Johnson, L., & Brown, M. (2020). The impact of employee training on productivity and performance. *Journal of Human Resource Development*, 46(3), 215-230.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Jones, R. J., Woods, S. A., & Guillaume, Y. R. F. (2016). The effectiveness of workplace coaching: A meta-analysis of coaching outcomes. *International Journal of Evidence-Based Coaching and Mentoring*, 4(1), 14-30.
- Kafor, J., & Agu, P. (2020). Enhancing the competence level of public personnel through training and development for effective service delivery. *Public Administration Review*, 18(5), 102.
- Karani, M., Mutua, J., & Mwangi, C. (2020). The role of coaching on employee performance in public sector organizations in Kenya. *Journal of Human*

- Resource Management*, 18(3), 150-167. Kiprotich, J., & Mwangi, D. (2021). The impact of coaching on organizational culture in the public sector. *African Journal of Business and Management*, 12(2), 132-148.
- Khan, S., Yimam, A., & Khan, M. S. (2016). Impact of training and development on employee performance: A case of organization. *Journal of Management Sciences*, 8(2), 75-88.
- Kimambo, R., & Mkangara, T. (2020). The role of job rotation in enhancing job satisfaction in public service organizations. *Tanzanian Journal of Public Administration*, 12(3), 89-105.
- Kleynhans, I. C., Schultz, C. J., Leong, L. L., & Nieman, G. (2007). *Human Resources Management*. Nyajaland, AZ: Juta & Company Ltd.
- Knief, U., & Forstmeier, W. (2021). Violating the normality assumption may be the lesser of two evils. *Behavior Research Methods*, 53(6), 2576-2590.
- Komba, H., & Mwaikambo, A. (2021). Job rotation and continuous learning: A case study of skill development in Tanzanian organizations. *Journal of Public Sector Performance*, 5(4), 112-128.
- Koopmans, L., Bernaards, C. M., & Hildebrandt, V. H. (2020). Defining and measuring individual job performance: A comprehensive review. *Journal of Occupational Health Psychology*, 25(4), 408-429.
- Kumar, V., & Sharma, S. (2020). Impact of on-the-job training on employee skill development and performance. *Journal of Human Resource Training and Development*, 35(3), 150-165.
- Lakens, D. (2022). Sample size justification. *Collabra: psychology*, 8(1), 33267.
- Lobe, B., Morgan, D., & Hoffman, K. A. (2020). Qualitative data collection in an era

- of social distancing. *International journal of qualitative methods*, 19, 1609406920937875.
- Mabula, L. (2016). Evaluating the effectiveness of training programs in public hospitals: A case study of Tanzania. *African Journal of Public Health Management*, 22(4), 175-189.
- Macky, K., & Johnson, S. (2000). The impact of employee training and development on organizational performance. *International Journal of Training and Development*, 17(2), 113-123.
- Magesa, F. (2016). Employee training and performance: Insights from Tanzanian government departments. *Africa Journal of Public Administration and Management*, 23(1), 45-57.
- Markom, M. (2022). The impact of training and development on employee performance. *Journal of Human Resource Management*, 12(3), 45-62.
- Masanja, G., & Rwegoshora, J. (2022). Job rotation and employee motivation: Evidence from Tanzanian public sector organizations. *East African Journal of Organizational Development*, 11(1), 98-115.
- Mbanaso, U. M., Abrahams, L., & Okafor, K. C. (2023). Research philosophy, design and methodology. In *Research Techniques for Computer Science, Information Systems and Cybersecurity* (pp. 81-113). Cham: Springer Nature Switzerland.
- Mlowe, P., Mwambona, G., & Kihoro, F. (2022). Enhancing communication and decision-making skills through coaching in Tanzanian public institutions. *Tanzania Journal of Management and Administration*, 9(1), 56-72.
- Mollet, S., Kimweli, R., & Mugeru, P. (2020). The impact of job rotation on skill

development and employee motivation in Tanzanian organizations.

Tanzanian Journal of Human Resource Development, 7(1), 64-82.

Motowidlo, S. J., & Kell, H. J. (2020). Job performance measurement and its implications for employee evaluation. *Journal of Applied Psychology*, 105(6), 771-784.

Moyo, R., Phiri, T., & Zulu, L. (2021). The impact of team-based training on employee coordination and organizational performance in public sector institutions. *Southern African Journal of Management*, 14(2), 170-183.

Mutua, J., Njuguna, J., & Mwanjala, C. (2020). Coaching as a strategy for improving employee motivation and performance. *International Journal of Public Sector Performance*, 4(4), 87-104.

Mwanjala, C., & Kihoro, F. (2021). Enhancing problem-solving skills through coaching: A case study of Tanzanian public sector organizations. *East African Journal of Public Administration*, 8(2), 110-127.

Mutula, K., Nkoma, D., & Kifungu, A. (2021). The influence of job rotation on employee motivation in public institutions: A Tanzanian perspective. *Journal of African Organizational Studies*, 13(2), 97-113.

Mwambona, J., & Kihoro, F. (2021). The influence of coaching on employee motivation in the Tanzanian public sector. *Journal of Public Administration and Policy Research*, 13(4), 98-115.

Ndalu, J., & Gondo, A. (2021). Building collaborative work cultures through coaching: Insights from Tanzanian public organizations. *Journal of Organizational Development*, 10(3), 78-92.

Nziku, T., Mwalimu, D., & Onyango, P. (2020). The impact of coaching on

- employee performance and organizational loyalty. *East African Business Journal*, 15(2), 245-263.
- Ndunguru, L., & Mtokambali, K. (2021). Strategic decision-making and problem-solving skills development through job rotation: A case study in Tanzania. *Journal of Organizational Performance*, 8(3), 76-91.
- Otley, D. (1999). *Performance management: A framework for management control systems research*. *Management Accounting Research*, 10(3), 363-382.
- Park, S., Kim, J., & Lee, H. (2020). *Fundamentals of quantitative research methods*. New York, NY: Routledge.
- Quintão, C., Andrade, P., & Almeida, F. (2020). How to improve the validity and reliability of a case study approach?. *Journal of Interdisciplinary Studies in Education*, 9(2), 264-275.
- Rahman, M. M. (2023). Sample size determination for survey research and non-probability sampling techniques: A review and set of recommendations. *Journal of Entrepreneurship, Business and Economics*, 11(1), 42-62.
- Ramlall, S. J. (2008). A review of employee motivation theories and their implications for employee retention within organizations. *The Journal of American Academy of Business, Cambridge*, 13(1), 52-62.
- Rezigalla, A. A. (2020). Observational study designs: Synopsis for selecting an appropriate study design. *Cureus*, 12(1).
- Rwechungura, B. (2020). *The effect of Training on Employees Commitment in Public Institutions* (Doctoral dissertation, Institute of Accountancy Arusha).
- Smith, J., & Johnson, L. (2019). *Employee training and development: A practical approach*. New York, NY: Routledge.

- Smith, R., & Lee, D. (2020). Knowledge transfer through employee training: A study of the effects on team performance. *International Journal of Training and Development*, 24(2), 125-140.
- Thompson, D. M. (2012). *The essentials of social research*. New York, NY: Oxford University.
- Tukunimulongo, E. (2016). On-the-job training and employee performance: Evidence from Mumias Sugar Company, Kenya. *Journal of Organizational Development*, 7(2), 89-104.
- Twesige, I. (2020). Government initiatives in employee training and development for public service delivery: The case of Rwanda Management Institute. *Journal of Public Sector Management*, 5(1), 112-125.
- Yimam, A. (2022). Impact of training on workforce efficiency and productivity in organizations. *Journal of Human Resource Development*, 16(2), 205-220.
- Zhang, Q. & Chen, Y. (2022). Fast sampling of diffusion models with exponential integrator. Retrieved on 12th Sept., 2024 from; <https://arxiv.org/abs/2204.13902>

APPENDICES

APPENDIX I: QUESTIONNAIRE

Dear respondent, the objective of this questionnaire is to collect your opinions about a research study on the effectiveness of employees' training and development on employee's performance at fire & rescue force department, Tanzania. Your consent to participate in this research is voluntary. The data collected from you will be handled with confidentiality.

Thank you for agreeing to participate in the research.

PART A: PROFILE OF RESPONDENTS

For each of the following questions provide responses that describe your profile in terms of gender, age group, educational levels and years of work experience. Put your answers in the spaces provided in the brackets by ticking [✓]

1.What is your gender?

1. Male [] 2. Female []

2.What is your age group?

1. 20-30 [] 2. 31-40 []
2. 41-50 [] 4. 51-60 []

3.What is your educational level?

1. Secondary Education [] 2. Certificate [] 3. Diploma Education
[]
4: Bachelor Degree [] 5. Master Degree []

4. How many years have you been working?

1. Less than 1 Year [] 2. 1 to 5 Years []
 3: 6-10 Years [] 4: More than 10 years []

PART B: EFFECT OF ON-THE-JOB TRAINING ON EMPLOYEE

PERFORMANCE AT THE FIRE AND RESCUE FORCE.

5. For each item in the table, indicate how much you agree or disagree with applying the following statements regarding the effect of on-the-job training on employee performance at the Fire and Rescue Force. Fill your answers in the boxes provided.

Key: SD= Strongly Disagree, D= Disagree, NS= Not Sure, A= Agree, SA= Strongly Agree

SN	Items	SD	D	NT	A	SA
a	My on-the-job training provided me with knowledge of the procedures					
b	I feel confident in my ability to perform procedures due to on-the-job training					
c	My on-the-job training helped me to become proficient in using equipment					
d	I feel comfortable using equipment due to on-the-job training					
e	My on-the-job training helped me to improve my teamwork skills					
f	I feel more confident working in a team due to on-the-job training					

PART C: EFFECT OF COACHING ON EMPLOYEE PERFORMANCE AT

FIRE& RESCUE FORCE

6. For each item in the table, indicate how much you agree or disagree with the effect of coaching on employee performance at Fire& Rescue Force. Fill your answers in the boxes provided.

Key: SD= Strongly Disagree, D= Disagree, NS= Not Sure, A= Agree, SA= Strongly Agree

SN	Items	SD	D	NT	A	SA
a	My coach helps me to set clear and achievable goals					
b	I feel more motivated to achieve my goals due to coaching					
c	My coach provides effective guidance on problem-solving					
d	I feel more confident in my ability to solve problems due to coaching					
e	My coach supports my decision-making abilities					
f	I feel more empowered to make decisions due to coaching					
g	My coach communicates clearly and effectively					
i	I feel more confident in my communication abilities due to coaching					

PART D: EFFECT OF JOB ROTATION ON EMPLOYEE

PERFORMANCE AT FIRE & RESCUE FORCE

7. For each item in the table, indicate how much you agree or disagree with applying the following statements regarding the effect of Job rotation on employee performance at Fire & Rescue Force. Tick your answers in the boxes provided.

Key: SD= Strongly Disagree, D= Disagree, NS= Not Sure, A= Agree, SA= Strongly Agree

SN	Items	SD	D	NT	A	SA
a	I feel more motivated to take on new challenges and responsibilities after participating in job rotation.					
b	I am better able to identify problems and come up with solutions after participating in job rotation.					
c	Job rotation has helped me to develop a more strategic approach to decision-making					
d	Job rotation has helped me to identify areas where I need further skill development					
e	Job rotation has helped me to develop a more strategic approach to decision-making					
f	I feel more confident in my ability to solve complex problems after participating in job rotation.					
g	My leader promotes a positive and collaborative work environment					
h	Job rotation has helped me to develop new skills.					
i	Job rotation has increased my motivation to learn new skills.					


PART C: PERFORMANCE

8. For each item in the table, indicate how much you agree or disagree with applying the following statements regarding the Employees performance at Fire & Rescue Force. Tick your answers in the boxes provided.


Key: SD= Strongly Disagree, D= Disagree, NS= Not Sure, A= Agree, SA= Strongly Agree

Question Number	Performance Aspect	SD	DS	NT	A	SA
1	Customer Satisfaction					
	I rarely receive positive feedback					
	I struggle to meet the needs and expectations of customer					
	I often exceed the needs and expectations of customers					
2	Efficiency					
	I generally work efficiently and effectively					
	I am skilled at delegating tasks and working collaboratively to increase efficiency.					
	I consistently find ways to improve processes and increase efficiency.					
3	Quality of Work					
	I struggle to produce high-quality work.					
	I consistently adhere to established procedures or protocols.					
	I struggle to produce high-quality work.					
4	Productivity					
	I struggle to complete tasks within the required time frame					
	I am skilled at managing competing demands and priorities.					
	I have strong focus and attention to detail.					

Appendix ii: Clearance Letters



THE UNITED REPUBLIC OF TANZANIA
 MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
THE OPEN UNIVERSITY OF TANZANIA



Ref. No OUT/PG202100973 18th June, 2024

Regional Fire Commander,
 Kinondoni Region,
 P.O Box 32920,
DAR ES SALAAM.

Dear Commander,

RE: RESEARCH CLEARANCE FOR MS. JAMILA WAZIRI KINDAMBA REG NO: PG202100973

2. The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1st March 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1st January 2007. In line with the Charter, the Open University of Tanzania mission is to generate and apply knowledge through research.

3. To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief background, the purpose of this letter is to introduce to you **Ms. Jamila Waziri kindamba Reg.No: PG202100973**), pursuing **Masters of Human Resource**

Management (MHRM). We hereby grant this clearance to conduct a research titled "Effectiveness of Training and Development on Employees' Performance at Fire & Rescue Force Department, Tanzania. He will collect his data at your office from 19th June to 30th July 2024.

4. In case you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O.Box 23409, Dar es Salaam. Tel: 022-2-2668820. We lastly thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours sincerely,

THE OPEN UNIVERSITY OF TANZANIA



Prof. Gwahula Raphael Kimamala

For: **VICE CHANCELLOR**

JAMHURI YA MUUNGANO WA TANZANIA
WIZARA YA MAMBO YA NDANI YA NCHI
JESHI LA ZIMAMOTO NA UOKOAJI

Simuyamaandishi: "ZIMAMOTO KUU"
 SimuNambari: 255-736-800060
 Telefax: 255-22-2184569
 BaruaPepe: kinondoni@zimamoto.go.tz



KAMANDA (M) KINONDONI
 JESHI LA ZIMAMOTO NA UOKOAJI
 MTAA WA ZIMAMOTO
 S. L. P. 32920,
KINONDONI, DAR ES SALAAM.

Kumb. Na ABN 14/150/05/56

19 June, 2024

JAMILA WAZIRI KINDAMBA (REG 202100973),
 CHUO KIKUU HURIA.
DAR ES SALAAM.

YAH: RUHUSA YA KUKUSANYA TAARIFA (DATA) KWA AJILI YA UTAFITI

Tafadhali husika na somo tajwa hapo juu.

1. Narejea barua yenye **Kumb. Na OUT/PG202100973** ya tarehe **18 Juni, 2024** iliyoomba kibali cha utafati katika masomo ya Shahada ya Uzamili (*Master of Human Resources Management*) kutoka Chuo Kikuu Huria.
2. Ofisi ya Kamanda wa Jeshi la Zimamoto na Uokoaji Mkoa wa Kinondoni inakujulisha kuwa ombi lako limekubaliwa, aidha unaelekezwa kuwa ukusanyaji wa taarifa hizo za tafiti zitumike kwa ajili matumizi ya tafiti yako na si vinginevyo.
3. Vilevile utatakiwa kuwasilisha nakala ya andiko la tafiti kwa Kamishna Jenerali wa Jeshi la Zimamoto na Uokoaji mara baada ya kukamilisha tafiti hiyo kwa ajili ya kumbukumbu.

Nakutakia tafiti yenye fanikio.

Kamanda wa Mkoa wa Kinondoni
 Jeshi la Zimamoto na Uokoaji
 S.L.P. 1306
 DAR ES SALAAM

P.C. MTUI - (SF)
KAIMU KAMANDA (M) KINONDONI
JESHI LA ZIMAMOTO NA UOKOAJI