

**AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING AND
ENTREPRENEURIAL DEVELOPMENT**

**EFFECT OF SUPERVISION, IN-SERVICE TRAINING, AND THE USE OF
TECHNOLOGY ON EMPLOYEE PERFORMANCE AND PRODUCTIVITY
AT AAMUSTED, MAMPONG CAMPUS**

THERESA ADUAKO FREMPONG

MASTER OF BUSINESS ADMINISTRATION

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BY

THERESA ADUAKO FREMPONG

(7211390036)

**A thesis submitted to the School of Graduate Studies, Akenten Appiah-Menka
University of Skills Training and Entrepreneurial Development, in partial
fulfilment of the requirements for the award of a Master of Business
Administration in Human Resource Management and Organisational Behaviour**

SEPTEMBER, 2023

DECLARATION

Student's Declaration

I hereby declare that this work is the result of my own original work and that no part of it has been presented for another degree at this university or elsewhere.

THERESA ADUAKO FREMPONG

SIGNATURE.....

DATE

Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with guidelines on supervision of dissertation laid down by the Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development.

DR. VICTORIA NYAMADI

SIGNATURE.....

DATE

ABSTRACT

The study aimed at the effects of supervision, in-service training, and the utilization of technology on employee performance and productivity at the Mampong Campus of the Akenten Appiah – Menka University of Skills Technology and Entrepreneurial Development (AAMUSTED) in Ghana. The study employed a case study design. The research approach used was sequential explanatory mixed method. The study used sample of 100 staff of the university and a stratified random sampling technique and purposive sampling were adopted for the study. The questionnaire consisted of both closed-ended and Likert-scale questions, designed to measure variables related to supervision, in-service training, technology utilization, employee performance, and productivity for the data collection. Inferential statistical techniques, such as correlation and regression analyses, was employed to examine relationships between variables. The findings of the study suggested that, organization's proactive approach, including change management, technology proficiency training, collaboration with information technology, and partnerships, demonstrates its commitment to harnessing the benefits of technology for improved training and supervision outcomes. The study concluded that, in-service training, integration of information, communication and technology, and supervision are relevant and beneficial to employees as it underscores the organization's commitment to fostering employee growth and development. It is recommended that, effective in-service training and the utilization of technology on employee performance and productivity with effective supervision could be achieved when timely organized, and can help harness the full potential and productivity of staff in an organization.

DEDICATION

This research work is dedicated to my late beloved mother Obaapanin Adwoa Gyamfua (a.k.a Agnes Tuffour) for her wonderful support, sacrifices, and contributions that has brought me this far.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In today's rapidly changing global landscape, organizations across the world are recognizing the pivotal role played by effective supervision and continuous training in enhancing employee performance and productivity (Brown et al., 2020). With the advent of technology, the integration of Information and Communication Technology (ICT) has further revolutionized traditional approaches to supervision and in-service training, offering new avenues for skill development and knowledge enhancement (Khan, 2023). Supervision is a fundamental aspect of effective management and leadership. It involves providing guidance, support, and oversight to employees, ensuring they have the necessary resources and direction to fulfill their responsibilities efficiently. Supervisors play a crucial role in setting expectations, providing feedback, and facilitating the professional growth and development of their team members. According to Khan, (2023) when supervision is conducted effectively, it creates a positive work environment, fosters employee engagement, and enhances overall performance.

In-service training programs, also known as professional development or continuous learning initiatives, are designed to enhance employees' skills, knowledge, and competencies (Farooq et al., 2019). These programs provide opportunities for employees to acquire new skills, stay updated with industry trends, and expand their expertise. In-service training enables employees to adapt to changing work environments, handle new technologies, and improve their problem-solving and

decision-making abilities. By investing in employee development, organizations can create a culture of learning and growth, leading to improved productivity and performance (Cömert, 2018).

Technology has become an integral part of the modern workplace, transforming the way employees perform their tasks and collaborate with colleagues (Farooq et al., 2019). Technological advancements have revolutionized various aspects of work, such as communication, data analysis, automation, and workflow management. By leveraging technology effectively, organizations can streamline processes, increase efficiency, and enhance employee performance (Subramony et al., 2017). However, the successful integration of technology requires employees to possess the necessary digital skills and adapt to new tools and systems.

While the individual effects of supervision and in-service training on employee performance and productivity have been widely studied, there appears to be a paucity of research examining their combined effects. It is essential to understand how institutions can leverage Technology to understand how these factors interact and influence each other to develop comprehensive strategies for optimizing employee outcomes. This thesis aims to investigate the effects of supervision, in-service training, and the utilization of technology on employee performance and productivity at the Mampong Campus of the Akenten Appiah – Menka University of Skills Technology and Entrepreneurial Development (AAMUSTED) in Ghana.

1.2 Problem Statement

A critical assessment of the attitude of staff towards the work for which they have been employed, makes one wonder what the state of supervision in Higher Education has been (Osei-Bonsu, 2014). Some people who need the services from universities think that the performance of staff has not been encouraging due to the fact that they have to spend long hours, if not days, before they are able to receive what they need from those offices. According to Subramony et al. (2017) supervision is an effective tool that could be used to promote good results as far as staff performance is concerned. It is also acknowledged that there is always a link between supervision and effective work, but this will be perfectly true only when the needed resources and commitment are available and are put to judicious use (Yeboah-Assiamah & Kyeremeh, 2014). Despite the increasing effects on the training of organizational employees by organizations, there is still limited literature on human resource development issues in developing countries (Saka & Salman, 2014). It is further worth noting that while much is known about the economics of training in the developed world, studies of issues associated with training in less-developed countries are rarely found (Pierce et al., 2015). This is against the backdrop that there is a popular belief in Ghana that public workers tend to be less concerned with productivity in as much as their salaries are paid at the end of the month.

AAMUSTED, like other universities in Ghana, has faced a persistent challenge in providing adequate in-service training to its employees over the years. This inadequate training has hindered the development of necessary skills and competencies among staff, resulting in a potential gap between employee performance and the university's expectations. In order to address this issue effectively, it is crucial to understand the

effects of supervision and in-service training, on employee performance and productivity and how technology can be deployed to aid the process at AAMUSTED.

1.3 Main Research Objective

The main objective of this thesis is to evaluate the effects of supervision, in-service training, and the use of technology on employee performance and productivity at AAMUSTED, Mampong Campus.

1.3.1 Specific research objectives

The specific research objectives include:

1. To assess the impact of in-service training on employee productivity at AAMUSTED Mampong.
2. To evaluate the role of ICT in ensuring effective in-service training and supervision at AAMUSTED Mampong.
3. To explore the relationship between supervision and employee performance at AAMUSTED Mampong.
4. To assess the challenges and opportunities associated with the integration of technology in supervision and in-service training processes at AAMUSTED Mampong.

1.4 Research Questions

The following research questions guided the study:

1. What is the impact of in-service training on employees' productivity at AAMUSTED Mampong?

2. What is the role of ICT in ensuring effective in-service training and supervision at AAMUSTED?
3. What is the relationship between supervision and employees performance at AAMUSTED?
4. What are the challenges in supervision and participating in the current in-service training programs at AAMUSTED?

1.5 Significance of the Study

This study holds significant theoretical and practical importance. Theoretically, it will contribute to the existing body of knowledge by examining the effects of supervision, in-service training, and how technology can be deployed to aid the process on employee performance and productivity within the higher education context in Ghana.

Practically, the findings will provide valuable insights to the management of AAMUSTED, allowing them to make informed decisions and design effective strategies to improve supervision practices, enhance in-service training programs, and leverage technology for maximizing employee performance and productivity.

Furthermore, the study's outcomes can also benefit other educational institutions and organizations seeking to enhance employee performance through improved supervision, training, and technology integration.

By conducting a thorough literature review and empirical research, this study intends to provide valuable insights into the relationship between supervision, in-service training, technology, and employee performance and productivity.

The findings of this research will offer organizations practical recommendations for implementing effective supervision practices, designing impactful in-service training programs, and harnessing technology to enhance employee performance and productivity.

Ultimately, this research seeks to contribute to the development of strategies that promote organizational success in today's dynamic and technology-driven work environment.

1.6 Delimitation

This thesis focuses specifically on the effects of supervision, in-service training, and the use of technology on employee performance and productivity at AAMUSTED, Mampong Campus.

1.7 Limitation

The researcher was unable to gather data on time as a result of unavailability of the respondents at the time they were needed. However, the researcher visited the respondents severally before she was able to meet all the targeted respondents.

1.8 Organization of the Thesis

This thesis is structured into several chapters. Chapter one (1) provides an introduction to the research topic, background information, problem statement, research objectives, significance of the study, scope, limitations, and organization of the thesis. Chapter two (2) presents a comprehensive review of the relevant literature on supervision, in-service training, technology integration, and their impact on employee performance and

productivity. Chapter three (3) describes the research methodology employed in this study, including data collection methods and analysis techniques. Chapter four (4) presents the findings of the research, followed finally by a discussion in Chapter five (5) that interprets the results in light of the research objectives and concludes the thesis, summarizing the key findings, implications, and providing recommendations for future research and practical implementation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a comprehensive review of the relevant literature on the effects of supervision, in-service training, and technology on employee performance and productivity. The literature review provide a solid foundation for understanding the key concepts, theories, and empirical studies related to the research topic.

2.2 Empirical Review

The empirical review of this study was done under the following sub headings:

Supervision and employee performance, in-service training and employee productivity and technology and training effectiveness

2.2.1 Supervision and Employee Performance

Supervision plays a crucial role in shaping employee performance and productivity. Effective supervision involves providing guidance, support, feedback, and clear expectations to employees. Several theoretical frameworks, such as social learning theory and transformational leadership theory, emphasize the importance of supervision in enhancing employee skills, motivation, and job satisfaction. The literature indicates that effective supervision positively influences employee performance and leads to higher productivity levels (Lin et al., 2022; Msuya, 2016; Paul & Audu, 2019).

Research has consistently shown that effective supervision positively influences employee performance and productivity. Supervisors who provide clear expectations,

guidance, support, and feedback tend to have a direct impact on employees' job satisfaction, motivation, and overall performance (Srivastava & Dhar, 2016). Effective supervision enhances communication, reduces ambiguity, and ensures employees have the necessary resources and information to perform their tasks efficiently.

Studies have also highlighted the importance of supervisor-employee relationships, emphasizing trust, mutual respect, and open communication as critical factors that contribute to improved performance (Omusebe et al., 2013). Supervision in the performance of an organization is largely determined by the employees who work in it. Employees are the drivers of the organization's operations, so that if employees' performance increases, so do the organizational performance (Saka & Salman, 2014). The same thing happened to government institutions where employees work. On the other hand, bureaucracy becomes an obstacle in service to the community, which then gives birth to a negative image of administration, including low productivity, poor public services provided, low responsibility, and little bureaucratic accountability (Selzer et al., 2021).

The performance of the employees is not only caused by a lack of work knowledge and skills, but also comes from leadership, work motivation, and competence (Aldoseri & Almaamari, 2020). Apart from the institutionalization of achievement based practices, this review clearly shows that, apart from claims of conflict, and rewards in organizations, including achieving valuable leadership positions, are systematically non-democratic (Mwema & Gachunga, 2014). From a practical point of view, flexibility is an important intervention tool for leaders and human resources (HR) in managing employees' performance by developing and maintaining high productivity

on an ongoing basis so that a structured process that supports the development of good work is needed (Yeboah-Assiamah & Kyeremeh, 2014). Supervision of employees' performance is needed as an effort to encourage progress in organizations that have the ability in every field of work so that they can be directed, progressive, and sustainable. These personal qualities will contribute to developing and implementing various strategic directions that improve employees' performance through optimal supervision with guidance related to staffing regulations (Mensah et al., 2016). Openness should not be seen as a stable feature of leadership supervision, but also actively enforced in interactions. Various practical steps are recommended to improve the employee experience by participating in formal task activities (Ijeoma, 2018).

This is presented about how the influence of supervision to improve the performance of its employees. Work engagement is an active, satisfying, and motivating concept (Dauda, 2018). Indeed, agreement in the literature seems to be appearing work engagement which refers to the simultaneous expression of various physical resources (enthusiasm), affective (dedication), and cognitive (absorption) at work. The involvement of supervision in work also enriches employees' experience in terms of quality (Preko & Adjetey, 2013). Supervision of employees' work must be open in increasing positive employees' loyalty, while other supervisors are more conservative and accustomed to controlling the intensity and frequency of perspectives on saving employees' work costs (Heskett et al., 2015). The supervisor must be good at adjusting specific strategies according to the truth. Getting the maximum benefit at work is one of the important contents of human resource management. So important is the supervision of employees' performance so that they can provide some references to carry out the formulation of incentive policies (Afrianty et al., 2022; Heskett et al.,

2015; Mensah et al., 2016). Practical steps for employees' supervision can be identified when critically reviewed. It was observed that the weakness of supervision was a manifestation of the lack of transparency in employees' performance practices. Employees' convenience is directly related to commitment, employees' behavior as an executor at work, employee turnover, absence, dedication, and performance (Erez, 2016). The level of work is important to attract and retain talented employees. Good supervision can ensure a competitive advantage in the work. The influence of higher authorities and working hours are considered important to improve employees' performance. Supervision of honorarium payments can improve morale and increase team cohesion (Donkor et al., 2021; Ohemeng et al., 2018). Supervision must continue to provide security benefits for all employees because that will positively affect employees' productivity and improve employees' performance in all sectors and create an impetus for employees' productivity (Sezer et al., 2017). Mental health problems of employees are the cause of the current working-age population. Leaders as supervisors are responsible for the work environment of employees related to work, but their knowledge of mental health issues is still lacking. Supervisory beliefs and supporting strategies need further exploration. Poor employees' performance checks can be influenced by leadership quality that does not indicate employee performance identification. In addition, the active personality of employees by strengthening the influence of leadership in identifying employees' performance monitoring problems regarding what they do (Forson et al., 2021).

Supervision activities and decisions will be interpreted by an employee as a feedback and will have a potentially strong impact on an employee's view of self, for instance self – belief, self – esteem. However, better managers will work with employees to help

them do their jobs more effectively but they cannot know they can help unless employees provide them with good factual information or even better concrete ideas about their performance (Usman, 2016). However, Msuya, (2016), observed further that, one of the greatest difficulties any manager experiences in appraising staff is being objective about the individual and this is because there is a tendency, naturally, to want to give better ratings to people they like than those they are less keen on.

2.2.2 In-Service Training and Employee Productivity

Talib, (2013) define training as a learning experience that aims to bring about a lasting change in an individual's abilities, ultimately improving their job performance. This change may involve enhancing or altering skills, knowledge, attitudes, and social behavior, impacting how employees work, interact with co-workers, and relate to supervisors. Training consists of planned programs designed to enhance performance at individual, group, or organizational levels, resulting in measurable improvements in knowledge, skills, attitudes, and social behaviors(Leslie et al., 2016).

Talib & Rahman, (2015)view training as the teaching or learning activities focused on helping members of an organization acquire and apply the knowledge, skills, abilities, and attitudes needed for their roles. It is considered a long-term investment in an organization's human resources. Tho & Trang, (2015) further highlights training as the means of providing employees, new or current, with the skills required to perform their respective jobs effectively. Ignoring training can be detrimental to an organization, even with high-potential employees, as performance is not guaranteed without proper guidance and support (Bluestone et al., 2013).

Osamwonyi, (2016) asserts that training aims to improve current or future employee performance and is essential for both new and existing employees. Training as a systematic process that alters employee behavior to align with organizational goals, emphasizing its focus on present job skills and abilities (Aarabi et al., 2013).

In-service training is vital for enhancing employee competencies and job performance. Literature suggests that well-designed and relevant in-service training programs positively impact employee productivity (Bon & Mustafa, 2013). Various training approaches, including on-the-job training, coaching, and workshops, have been explored in the literature. Active learning methods, such as simulations and on-the-job training, are effective in transferring knowledge and skills to the workplace. In-service training can also foster employee engagement, job satisfaction, and organizational commitment (Osamwonyi, 2016).

In-service training as training that takes place while employees carry out their work. It can be conducted independently or with the support of supervisors, coaches, or mentors and often involves informal activities and tools used in formal training. In-service training is typically provided when there are new employees in a work organization, and it is a form of on-the-job training (Chaghari et al., 2017).

2.2.2.1 Organization's Need for Training

Due to the increasing complexities of the work environment, rapid organizational changes, and technological advancements, periodic training of employees has become essential. These factors have made it necessary to provide training and development opportunities to employees to meet these challenges (Dauda, 2018). Training plays a

crucial role in ensuring that employees possess the necessary knowledge and skills to perform their jobs effectively, handle new responsibilities, and adapt to changing workplace conditions (Bluestone et al., 2013). Moreover, it is argued that training leads to improvements in product quality, customer satisfaction, productivity, morale, management succession, business development, and profitability (Talib, 2013).

In the past, there was a general reluctance to invest in training within the public service based on the assumption that employees hired under the merit system were already qualified and adequately trained for their positions. However, this perspective has changed, and both private and public sectors now recognize the significance of training in developing essential skills, enhancing productivity, improving work quality, and fostering employee loyalty to the organization (Leslie et al., 2016).

In-service training is of utmost importance in the public sector as it ensures the development of result-oriented individuals who can recognize opportunities and fulfill organizational objectives. Kissi et al. (2019) views in-service training as a critical factor that has contributed to the improvement of employee performance since the days of Frederick Taylor's scientific management. In-service training is seen as a process of acquiring skills, concepts, rules, or attitudes to enhance employee performance (Selzer et al., 2021). Different scholars approach the definition of in-service training from various perspectives, with some viewing it as an investment that commits resources to acquire assets for future benefits.

In-service training, as defined by Pierce et al. (2015) aims to develop specific attitudes and skills required for a job to maximize individual productivity and improve overall

organizational efficiency. It is an organized process through which individuals acquire knowledge and skills for a specific purpose. The objective of in-service training is to bring about positive behavioral changes aligned with organizational goals, ultimately increasing productivity. However, many organizations, including the Enugu State Ministry of Health, perceive in-service training as an additional expense, supporting it only when there is surplus funding (Preko & Adjetey, 2013). Ideally, in-service training should be regarded as an essential tool that must be carried out annually with a dedicated budget provision for it. This deviation from the norm prompted the researcher to undertake a project to raise awareness regarding the significance of in-service training and development (Heskett et al., 2015).

In line with Udo Aka's definition, Armstrong Michael (2013) described in-service training as the modification of behaviors through experience and the transfer of skills and knowledge from those who possess them to others, resulting in a significant improvement in job performance due to instruction, practice, and experience. Similarly, Mc Thayer (2013) defined in-service training as the formal procedures used by a company to facilitate employees' learning so that their resulting behaviors contribute to achieving the company's goals and objectives. It is worth noting that in-service training encompasses activities that involve the development of complex knowledge, the inculcation of elaborate administrative skills, and the cultivation of attitudes towards intricate and controversial social issues.

The impact of in-service training on any given society is highlighted by Victor (1977), who observed that the major capital stock of an industrially advanced country lies not in its physical equipment but in the knowledge amassed from empirical sciences and

the capacity of its population to utilize this knowledge. Supporting this view, Oshisami (1982) emphasized that development starts with people and their education, organization, and discipline. Without these factors, all resources remain untapped, and a high level of education in a country can lead to economic miracles. The central idea here is that manpower is the lifeblood of any organization or economy, as it drives and controls other factors of production, necessitating careful provision, utilization, and preservation.

Undoubtedly, in-service training significantly improves the quality of life, especially in the public sector, where ministries, particularly in administrative cadres, benefit from such training and development to fulfill their duties. Incompetent and untrained personnel in the Ministry of Health, for instance, can lead to poor job performance. Training plays a pivotal role in the development of organizations by enhancing performance and increasing productivity, giving them a competitive edge and enabling them to thrive. There is a noticeable difference between organizations that invest in employee training and those that do not. Training is a planned and systematic activity that enhances employees' skills, knowledge, and competencies to perform their work effectively.

Motivation is a crucial prerequisite for learning, followed by cues, responses, and timely feedback, which facilitate successful learning. Employee performance is measured against the organization's set standards, and good performance implies that employees meet or exceed these expectations. Effective administration and presentation of employees' tasks that align with the organization's desired quality also define performance.

While much is known about training economics in developed countries, there is a scarcity of studies on training issues in less-developed countries. In China, training often focuses on addressing skills deficiencies rather than enhancing productivity. Training programs help employees become familiar with advanced technology and acquire robust competencies to handle newly introduced technical equipment. Effective training can rectify deficiencies and ensure employees deliver according to the organization's requirements. Employee feedback on working conditions is crucial as it draws the attention of managers to vital factors. Providing comprehensive training and development can improve the quality of current employees and lead to beneficial outcomes for firms, such as improved problem-solving, decision-making, teamwork, and interpersonal relations.

Training significantly impacts employee performance and can enhance the quality of current employees within firms. Research suggests that investing in problem-solving, teamwork, and interpersonal relations training leads to favorable outcomes for organizations. The investigation of a contingency model of transfer-oriented training intervention design can provide valuable insights for creating conducive training environments that promote positive transfer and productivity effectiveness.

Various key activities, such as identifying training needs, designing and implementing training programs, ensuring transfer of training, and evaluating program benefits, play crucial roles in successful training initiatives. The correct implementation of all steps in the training process, including analyzing training needs, developing suitable training plans, and conducting evaluations, determines the success of training efforts.

Training, along with other activities, positively influences results and is associated with increased productivity and reduced staff turnover. Salary compression, where post-training productivity increases at a faster rate than salary, can impact firms' incentive to finance general or transferable training. Human Capital Theory supports the positive effect of on-the-job training on salary increment due to enhanced labor productivity. Additionally, organizations' compensation systems significantly affect the transfer of training. Motivation increases when meaningful rewards are given to employees who effectively transfer their training.

Training is categorized into different types, such as on-the-job training, off-the-job training, and informal training, each with varying impacts on salary increments. On-the-job training tends to result in higher salary increases compared to off-the-job training or informal training.

Different methods of training exist, including curative and preventive training. Curative training addresses current problems workers face, while preventive training focuses on potential future issues. In-service training is an in-house program used in government and business enterprises, while apprenticeship involves learning a skill or trade from experts in the field through hands-on experience.

In the public sector federation, in-service programs include induction training, on-the-job training, supervisor training, and management training and development. Induction training introduces new employees to the work environment, while on-the-job training enhances the skills of employees already performing their assigned tasks. Supervisor training focuses on developing supervisory skills, and management training aims to

prepare suitable employees for higher managerial positions. The main objectives of employee training and development are to improve trainee qualities, formulate objectives for different needs, and achieve those objectives effectively.

The training programs, regardless of the type of training involved, the contents of the training generally aim to increase personnel efficiency, foster professional growth, and facilitate smoother and more effective organizational operations. Adeniji (2010) emphasizes the significance of training and development, stating that even when an organization has skilled and determined employees, appropriate equipment, and managerial support, productivity may still fall below expected standards. To achieve the objectives of the training program, the design and implementation must be carefully planned and systematically tailored to enhance performance and productivity.

Armstrong (1996) underscores that training within an organization should be developed and operated by considering learning theories and approaches to ensure better comprehension by the trainees. Motivation is a crucial factor in the training process, as highly motivated trainees acquire new skills and knowledge more quickly and systematically (Flippo, 1973). Bryn (1990) also highlights the four prerequisites of learning: motivation, cue, response, and feedback. Numerous researchers, including Rohan and Mudhumita (2012), have identified training as a significant factor in increasing organizational productivity. The success of training depends on the correct implementation of all steps in the process, including previous analysis of training needs, proper implementation of the training plan, and evaluation (Pineda, 1995; Sole and Mirabet, 1997).

Studies conducted by Colombo and Stanca (2008), Sepulveda (2005), and Konings and Vanormelingen (2009) reveal that training is a fundamental and effective tool for achieving an organization's goals and objectives, resulting in higher productivity. Holton (2000) points out that training design plays a crucial role in enabling trainees to transfer their learning back to their job effectively. Training plays a crucial role in the development of organizations, leading to improved performance and increased productivity, which ultimately positions them competitively (Benedicta, 2010). Rohan and Madhumita (2012) highlight the positive impact of investing in employee training, especially in areas like decision making, teamwork, problem-solving, and interpersonal relationships, resulting in organizational growth and improved employee performance. Consequently, training becomes a means of enhancing employee commitment and maximizing their potential.

Organizations need to recognize the value of their employees as true assets and show appreciation for their hard work, fostering loyalty and attachment to the organization (Management Study Guide, 2014). Employees who invest their time and effort in accomplishing organizational goals also expect something in return, beyond monetary compensation. Continuous employee development is essential for preparing employees for current and future assignments, considering that skills and techniques might need to adapt to changing circumstances (Management Study Guide, 2014). Employee development and training are instrumental in various aspects of organizational development, including increased productivity, improved quality of services and products, enhanced job knowledge and skills, addressing employee weaknesses, fostering job security, reducing labor turnover and absenteeism, promoting employee satisfaction, and eliminating resource wastage and accidents.

In the context of this research, the emphasis is placed on in-service training as a corrective strategy for enhancing management capacity in Ghana's tertiary education sector. The objective is to recruit and train specialized personnel with the necessary skills and knowledge, particularly focusing on middle and top management development. In-service training is considered a crucial aspect of educational planning to ensure that administrative cadres down to clerical positions receive appropriate training. On-the-job training is commonly used in many organizations, especially when coaching and short-term assignments are needed for skill development. However, for in-depth theory acquisition, classroom-based training may be more suitable. On-the-job training is beneficial for learning unskilled and semi-skilled manual, clerical, and sales jobs.

2.2.3 Technology and Training Effectiveness

The integration of technology in training processes has the potential to enhance the effectiveness and efficiency of in-service training. E-learning platforms, virtual simulations, and computer-based training are examples of technological tools that have been widely used in training programs. The literature highlights the advantages of technology in providing flexible, self-paced learning opportunities and facilitating knowledge transfer. Technology-mediated training has been shown to improve learning outcomes, knowledge retention, and employee performance.

- While supervision, in-service training, and technology utilization have individual impacts on employee performance, their combined effects can be even more significant.

- Integrated approaches that incorporate supportive supervision, targeted training programs, and the appropriate use of technology can create a synergistic effect on employee performance and productivity.
- For example, supervisors who provide guidance and support in utilizing technology and facilitate training opportunities can enhance the effectiveness of both supervision and training initiatives.

Numerous studies have emphasized the importance of incorporating modern technology in training programs. As noted by Chiappe and Sullivan (2018), the use of multimedia elements, virtual reality (VR), augmented reality (AR), and simulations have proven to be effective in engaging learners and facilitating knowledge retention. The interactive nature of these technologies allows learners to have a hands-on experience, leading to better comprehension and skill development. The rise of e-learning platforms and blended learning approaches has revolutionized traditional training methods. O'Dwyer et al. (2019) reported that e-learning can be as effective as traditional classroom training when appropriately designed and executed. The flexibility and convenience of e-learning have made it a popular choice for organizations seeking to provide continuous learning opportunities to their employees, regardless of geographical constraints. Again, technology enables training to be tailored to individual learning styles and preferences. Adaptive learning algorithms, as studied by Masthoff et al. (2020), use data-driven insights to create personalized learning paths for each learner, optimizing content delivery and maximizing learning outcomes. By addressing learners' specific needs and knowledge gaps, technology-driven adaptive learning approaches have shown promising results in improving training effectiveness.

Gamification, the integration of game elements into training, has garnered attention for its ability to increase learner engagement and motivation. Research by Hamari et al. (2018) highlighted that gamified training experiences lead to higher levels of participation and knowledge retention. Points, rewards, leaderboards, and competition create an immersive learning environment that enhances the overall effectiveness of training programs. The prevalence of mobile devices has facilitated the implementation of mobile learning (m-learning) and micro-learning strategies in training. Li et al. (2021) found that bite-sized content delivered through mobile devices allows for quick access to information, promoting just-in-time learning. The convenience of mobile learning has proven especially beneficial for on-the-job training and performance support.

While technology has shown immense promise in enhancing training effectiveness, there are challenges to consider. Studies by Higgins et al. (2019) emphasized the need for user-friendly interfaces and accessibility features to accommodate diverse learners, including those with disabilities. Additionally, concerns related to data security and privacy in technology-enabled training must be addressed to ensure learner trust and compliance. In conclusion, the integration of technology into training has transformed the learning landscape, providing numerous opportunities to enhance training effectiveness. From e-learning and gamification to adaptive learning and mobile learning, the research indicates that technology-driven approaches can significantly improve learners' engagement, knowledge retention, and skill development. Nevertheless, to maximize the benefits of technology in training, it is crucial for organizations to design inclusive and user-friendly training experiences that address the specific needs of their workforce while ensuring data security and privacy. As

technology continues to evolve, further research is warranted to explore innovative ways to leverage technology for even more effective training outcomes.

2.3 Technology and Supervision

Technology also has a significant impact on the nature and effectiveness of supervision. The advent of communication tools, such as email, video conferencing, and instant messaging, has transformed the way supervisors interact with employees. Virtual supervision, where supervisors remotely monitor and guide employees, has gained popularity. The literature suggests that technology-enabled supervision can increase employee autonomy, flexibility, and accessibility. Technology has significantly impacted various aspects of professional life, including the field of supervision. Over the years, technological advancements have provided new tools and methods to enhance the supervisory process, fostering improved communication, monitoring, and support for employees.

Studies by Hooper and Martin (2017) emphasize how technology has revolutionized communication between supervisors and their subordinates. The use of email, instant messaging, video conferencing, and collaboration platforms has facilitated real-time interactions, overcoming geographical barriers and time constraints. Such technology-enabled communication channels have been found to promote more frequent and efficient supervisor-subordinate exchanges. The rise of telework and remote teams has necessitated the evolution of supervision methods. Research by Allen et al. (2019) explored virtual supervision and its impact on team dynamics. Virtual supervision leverages video conferencing and collaborative tools to facilitate team meetings, goal setting, and progress tracking. The study revealed that virtual supervision can be

effective when accompanied by clear communication protocols and the establishment of trust among team members.

Advancements in data analytics have enabled supervisors to gather and analyze large datasets to make informed decisions about employee performance and development. Studies by Smith and Johnson (2020) highlight how data-driven supervision enhances objectivity and fairness in performance evaluations. By using technology to track key performance indicators and gather feedback, supervisors can identify areas for improvement and provide targeted support to employees. Supervision involves not only monitoring but also fostering the growth and development of employees. Technology plays a crucial role in providing opportunities for continuous learning and skill enhancement. Research by Wallace et al. (2018) explored the effectiveness of online training platforms and virtual workshops in developing employees' competencies. The study found that technology-enabled training can be as effective as traditional training methods when well-designed and engaging. Supervisors have access to a wide range of technological tools that enable them to monitor employee performance in real-time. Research by Chen et al. (2019) delves into the use of employee monitoring software, which tracks productivity metrics and time spent on tasks. While such monitoring can boost productivity, ethical considerations and potential privacy concerns should be addressed to maintain a healthy work environment.

Though technology has introduced numerous benefits to supervision, it also presents challenges. Studies by Anderson and Jackson (2021) emphasize the importance of striking a balance between technology-driven supervision and maintaining a human touch. Overreliance on technology may lead to reduced interpersonal connections and

negatively impact employee morale. Additionally, the need for proper training and support in using new technologies is essential to ensure effective implementation.

- It also presents challenges related to maintaining personal connections, trust, and managing work-life boundaries.
- The adoption and effective use of technology have the potential to significantly impact employee performance and productivity.
- Technology can automate routine tasks, streamline processes, and provide access to real-time information, enabling employees to work more efficiently and accurately.
- Research suggests that employees who are proficient in using technology and have access to appropriate tools and resources demonstrate higher levels of performance and productivity.
- However, it is important to consider the role of training and support in effectively utilizing technology. Adequate training and ongoing support are necessary to ensure employees are comfortable with new technologies and can leverage their full potential.

In conclusion, technology has profoundly transformed the supervisory landscape, enabling improved communication, data-driven decision-making, and efficient performance monitoring. Virtual supervision, telework, data analytics, and technology-enabled training have all contributed to enhancing the effectiveness of supervision. However, supervisors must be mindful of striking a balance between technology and human interactions to maintain a positive work environment. As technology continues to evolve, further research is warranted to explore innovative ways to leverage technology for more efficient and impactful supervision practices.

2.4 The Ghanaian and African Context

In the context of Ghana and Africa, the importance of effective supervision, continuous in-service training, and technology adoption for enhancing employee performance and productivity cannot be overstated. Understanding the Ghanaian and African context is crucial for analyzing the effects of supervision, in-service training, and technology on employee performance and productivity at AAMUSTED, Mampong Campus. Ghana's educational landscape, workforce characteristics, and technological advancements shape the dynamics of supervision and training practices. The literature highlights the need for context-specific research to address the unique challenges and opportunities faced by African organizations.

- It is essential to consider the organizational context and industry-specific factors when investigating the effects of supervision, in-service training, and technology utilization on employee performance.
- Factors such as organizational culture, leadership style, employee characteristics, and the nature of work can moderate the relationship between these variables.
- Research conducted in similar contexts or industries can provide valuable insights into the specific dynamics and mechanisms through which these factors influence employee performance.

According to Agyekum et al. (2018), effective supervision fosters a positive work culture, enhances employee morale, and improves job satisfaction. Research has also shown that culturally sensitive supervision practices are crucial for ensuring effective communication and understanding between supervisors and subordinates in the diverse African workforce (Ndalamba & Khumalo, 2019). In-service training is essential for

enhancing employee skills and knowledge, particularly in rapidly evolving industries. Studies by Addae & Ofori-Abebrese (2017) reveal that training interventions tailored to the specific needs and challenges of the Ghanaian and African workforce can lead to increased employee competence and motivation. However, challenges such as limited resources and infrastructure must be considered when designing effective in-service training programs in the region (Addae & Ofori-Abebrese, 2017).

The adoption of technology in the workplace has gained momentum in Ghana and Africa, offering new possibilities to improve employee performance and productivity. Research by Osei-Kwakye et al. (2019) highlights the importance of integrating locally relevant technological solutions that consider factors such as digital literacy, language, and accessibility. Embracing technology can bridge geographical gaps and create opportunities for remote training and collaboration (Awuah et al., 2020).

Studies have shown that technology can augment supervision practices in Ghana and Africa. As noted by Amponsah-Tawiah & Mensah (2018), the use of digital tools like video conferencing and instant messaging facilitates regular communication between supervisors and employees, even in geographically dispersed teams. Technology-driven supervision has the potential to enhance accountability, feedback delivery, and performance monitoring (Mensah et al., 2021). Technological advancements have opened up new avenues for delivering in-service training to employees. Research by Quaye & Appiah (2020) demonstrates how e-learning platforms, mobile learning, and virtual training workshops can provide accessible and cost-effective training options for Ghanaian and African employees. Technology-enabled training allows employees to learn at their own pace and fosters a culture of continuous learning.

Despite the potential benefits, there are challenges associated with implementing technology-driven supervision and in-service training in Ghana and Africa. Limited access to internet connectivity, inadequate infrastructure, and varying digital literacy levels are some of the barriers that need to be addressed (Awuah et al., 2020). Additionally, ethical considerations and data privacy concerns should be taken into account when utilizing technology in the workplace.

In the Ghanaian and African context, effective supervision, in-service training, and technology adoption play critical roles in enhancing employee performance and productivity. Understanding the unique cultural and infrastructural aspects of the region is crucial when designing and implementing technology-driven solutions. By leveraging technology to support supervision and in-service training, organizations in Ghana and Africa can unlock the full potential of their workforce and create a pathway to sustainable growth and development. However, it is essential to address the challenges associated with technology adoption to ensure equitable access and meaningful impact for all employees in the region. Future research should continue to explore innovative ways to harness technology's potential for optimizing employee performance and organizational productivity in the Ghanaian and African context.

2.5 Summary and Research Gaps

This literature review provides insights into the theoretical foundations and empirical findings related to supervision, in-service training, and technology in relation to employee performance and productivity. However, several research gaps exist. Limited studies have specifically examined the effects of supervision and in-service training in the higher education sector in Ghana and Africa. Furthermore, the literature lacks

comprehensive research that explores the integration of technology in supervision and training processes within this context. Addressing these gaps is essential to enhance our understanding of the effects of these factors on employee performance and productivity at AAMUSTED, Mampong Campus.

In conclusion, the literature review highlights the significance of supervision, in-service training, and technology in influencing employee performance and productivity. It also emphasizes the importance of conducting context-specific research to understand the unique dynamics of the Ghanaian and African context. Building on this foundation, the subsequent chapters of this thesis will present the research methodology, findings, and analysis, leading to a comprehensive understanding of the effects of supervision, in-service training, and technology on employee performance and productivity at AAMUSTED, Mampong Campus.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter gives account of the methodology employed in this study. The research design, description of the study area, Population and Sampling Techniques, data collection procedure, data analysis, validity and reliability and ethical considerations.

3.2 Research Design

The research design chosen for this study is a case study design. A case study is an appropriate research design when you want to gain concrete, contextual, in-depth knowledge about a specific real-world subject. It allows you to explore the key characteristics, meanings, and implications of the case. The research approach use a mixed-methods approach, incorporating both quantitative and qualitative data collection and analysis methods. This approach allowed a comprehensive exploration of the research topic, combining statistical analysis of survey data with in-depth insights gained from interviews. The specific type of mixed method used was the sequential explanatory mixed-method. This approach starts with quantitative data collection and analysis and then follows up with qualitative data collection and analysis, which leads to interpretation. This helps determine what quantitative results need further explanation.

3.3 Description of Study Area

The AAMUSTED Mampong Campus is a relatively new campus, and it is one of the two campuses of AAMUSTED. The campus offers a variety of undergraduate and

postgraduate programs in the fields of technical and vocational education and training, entrepreneurship, sciences, mathematics and education. The campus is located in the Mampong Municipality, which is in the Ashanti Region of Ghana. Asante-Mampong is the capital of the Mampong Municipality (Ghana District, 2006). The Municipality is located 60 km North-East of Kumasi on the Kumasi - Ejura road (Ghana District, 2006). It lies in the transitional zone between the savanna zone of the north and the tropical rain forest of the south of Ghana (Ghana District, 2006).

Asante-Mampong Municipality is situated at latitude 07° 04' degrees north and longitude 01° 24' degrees west at 457 m above sea level (Ghana District, 2006). Annual temperatures of the municipality ranged between 21.9 and 30.1°C (Meteorological Service Department, 2021). Rainfall pattern in the municipality is bimodal, and it occurs from April to July (major rainy season) and August to November (minor rainy season) and has about 1224 mm of rain per annum ((Meteorological Service Department, 2021). The dry season starts from December and ends in March. The vegetation is transitional savanna woodland and its supports vegetable production. The main occupation is vegetable production. The majority of people in Mampong are farmers and traders and they celebrate Kontonkyi festival. The municipality has a population of approximately 200,000 people.

DISTRICT MAP OF MAMPONG MUNICIPAL



Figure 3.1: Map of Ashanti Mampong Municipality

The campus is headed by the Principal, who is assisted by the Campus Registrar, four (4) Deans and other administrative staff and non-administrative. The campus also have

four (4) faculties, eleven (11) departments and seven (7) sections/units including crèche.

The campus is responsible for the provision of tertiary education in the Mampong Municipality. This includes the provision of infrastructure, teaching and non-teaching staff, and educational materials.

3.4 Population and Sampling Techniques

The whole staff of the Mampong Campus, numbering three hundred and twenty four (324) formed the population of the study area. This comprised two hundred and eighteen permanent staff which includes four (4) top management, eighty nine (89) casual workers and seventeen (17) voluntary workers. The staff are categorized under four (4) unions which includes Senior Members which are members of University Teacher Association of Ghana (UTAG) and Ghana Association of University Administrators (GAUA) members, Senior Staff Association Members (SSA of G, Junior Staff Association (TEWU), Casual Workers and National Service Personnel. A sample size of one hundred was considered. By means of stratified random sampling, the researcher selected eight (8) staff under each of the seven (7) main departments. This technique was used because every individual of the population had an equal and independent chance of being part of the samples. Stratified random sampling was used because it provides better coverage of the population since the researcher has control over the subgroups to ensure all of them are represented in the sampling. Again, the purposive sampling was used to select three (3) key respondents namely Heads of Department, Departmental Administrators GAUA Members, Human Resources Personnel. The choice of this sample size was informed by the decision of the

researcher to focus more on supervision, in-service training, technology utilization, employee performance and productivity which is the main subject of the study. Again; the unit heads were purposively selected because they are at the helm of affairs at the Mampong Campus. They also carry out supervision in their area of work and they are in a better position to give adequate information about supervision.

Furthermore, to find out whether supervision has effect on staff performance, 7 unit heads from the Mampong Campus were also selected. These were selected because they also perform supervisory role in their respective area of work.

3.5 Data Collection

3.5.1 Quantitative data

To gather quantitative data, a structured questionnaire was administered to a sample of employees at AAMUSTED, Mampong Campus. The questionnaire were consisted of both closed-ended and Likert-scale questions, designed to measure variables related to supervision, in-service training, technology utilization, employee performance, and productivity. The questionnaire was pilot-tested at St. Monica's College of Education, Mampong to ensure clarity and validity.

The sampling technique used was stratified random sampling. The population of interest was divided into relevant strata based on department or job category. From each stratum, a proportionate sample of eight (8) were selected randomly.

3.5.2 Qualitative data

Qualitative data was collected through focused group interviews with a subset of employees and relevant stakeholders at AAMUSTED, Mampong Campus. The interviews were conducted face-to-face and by video conferencing, based on the availability and preferences of the participants. The interview questions were designed to explore in-depth insights, perceptions, experiences, and challenges related to supervision, in-service training, and technology utilization in enhancing employee performance and productivity.

The participants for the interviews were purposefully selected, ensuring representation from different departments, levels of responsibility, and experiences. The number of interviews conducted was determined based on data saturation, i.e., the point at which no new information or themes emerge from the interviews.

3.6 Data Analysis

3.6.1 Quantitative data analysis

The quantitative data collected through the questionnaires was analyzed using appropriate statistical analysis techniques. Descriptive statistics, such as frequencies, percentages, and measures of central tendency, was used to summarize the data and provide an overview of the variables under investigation. Inferential statistical techniques, such as correlation and regression analyses, was employed to examine relationships between variables.

3.6.2 Qualitative data analysis

The qualitative data obtained from the interviews was analyzed using thematic analysis. The interview recordings were transcribed verbatim, and the transcripts were carefully reviewed to identify key themes, patterns, and insights related to supervision, in-service training, and technology utilization. The identified themes were organized into a coherent framework and analyzed to draw meaningful conclusions and insights.

3.7 Validity and Reliability

To ensure the validity and reliability of the study, several measures were taken. The questionnaire designed were given to lecturer/supervisor to look through for you to check spelling mistakes, content validity. Pilot testing of the questionnaire was conducted at St. Monica's College of Education to assess its clarity, relevance, and internal consistency. The qualitative data analysis involved multiple researchers, and inter-coder reliability will be established through regular discussions and consensus.

3.8 Ethical Considerations

Ethical considerations were given utmost importance throughout the research process. Informed consent was obtained from all participants, and their privacy and confidentiality ensured at all material times. Participants had the right to withdraw from the study at any time without consequences. The study adhered to the ethical guidelines and regulations as set out by the relevant institutional review boards. The reliability was 0.79.

3.9 Conclusion

This chapter presented the research methodology employed in this study, including the study area, research design, data collection procedures, and data analysis techniques. By utilizing a mixed-methods approach, the study aimed to provide a comprehensive understanding of the effects of supervision and in-service training by utilizing technology on employee performance and productivity at AAMUSTED, Mampong Campus.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter provides a comprehensive exploration and in-depth analysis of the data collected from the individuals selected as participants. It centers on examining the impact of supervision and in-service training, facilitated by technology, on the performance and productivity of employees within the AAMUSTED, Mampong Campus. The results obtained from this research study, along with the subsequent assessment of the responses, shed light on critical aspects related to in-service training, supervisory practices, the utilization of technology, and the challenges associated with these factors in relation to employee performance.

4.2 Demography of Respondents

A total number of hundred (100) employees were selected to provide answers to the structured questionnaire.

As shown in the Table 4.1 below, 55% of the respondents sampled were male and 45% were female this shows that there is a slight male dominance in the employees of AAMUSTED, Mampong Campus.

Table 4.1 provides a clear visual representation of the participant demographics in this survey. Notably, there was a higher number of male participants compared to their female counterparts. Specifically, 55.0% of the respondents were male, while the remaining 45.0% were female. This observation aligns with the prevailing gender

inequality in employment within the country, reflecting a higher male presence in the school's workforce.

Regarding the age distribution of the respondents, a significant proportion, accounting for 47.0%, fell within the age bracket of 31 to 40 years. This concentration of younger employees suggests a positive trend, indicating that the university attracts a substantial number of young adults who bring with them potential and innovative ideas.

Furthermore, the data from the table highlights that a substantial majority, 84.0% of the respondents, possessed tertiary education qualifications. Within this category, 10.0% had completed secondary education, while 4.0% had attained basic education levels, and only 2 individuals had no formal education. This pattern underscores the value placed on education among the university's workforce, reflecting a commitment to personal and national growth.

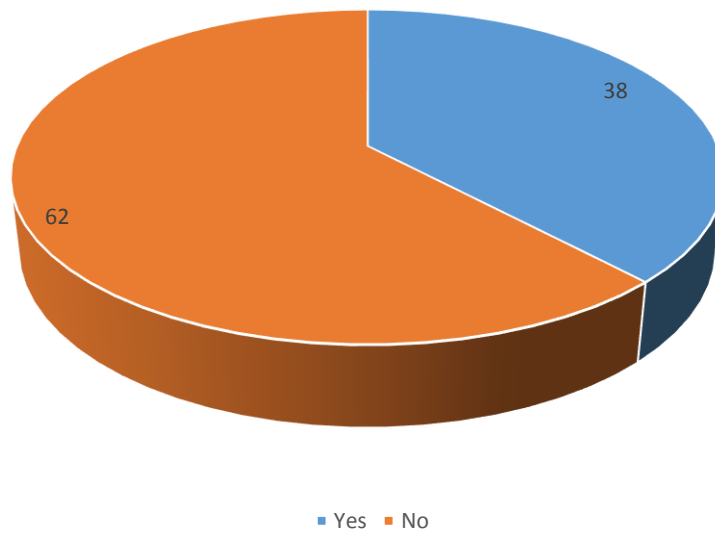
In terms of tenure, a significant portion of employees had worked in the university for 6 to 10 years, accounting for 43.0% of the total. This was followed by those with 1 to 5 years of experience, constituting 25.0% of the workforce. Additionally, 32.0% of employees had worked for more than a decade, indicating a substantial reservoir of experienced staff members within the institution. This demonstrates that a considerable proportion of the workforce possesses extensive professional experience.

Table 4.1: Demography of Respondents

Variable	Frequency	Percentage
Gender		
Male	55	55.0
Female	45	45.0
Total	100	100.0
Age group		
Below 20	4	4.0
20-29	22	22.0
30-39	47	47.0
40-49	18	18.0
50-60	9	9.0
Total	100	100.0
Level of Education		
No Formal Schooling	2	2.0
Basic	4	4.0
Secondary	10	10.0
Tertiary	84	84.0
Total	100	100.0
Years of experience at AAMUSTED		
1 – 5	25	25.0
6 – 10	43	43.0
Above 10	32	32.0
Total	100	100.0

Source: Field Data

Figure 4.1: Participation in any training program in the past two years

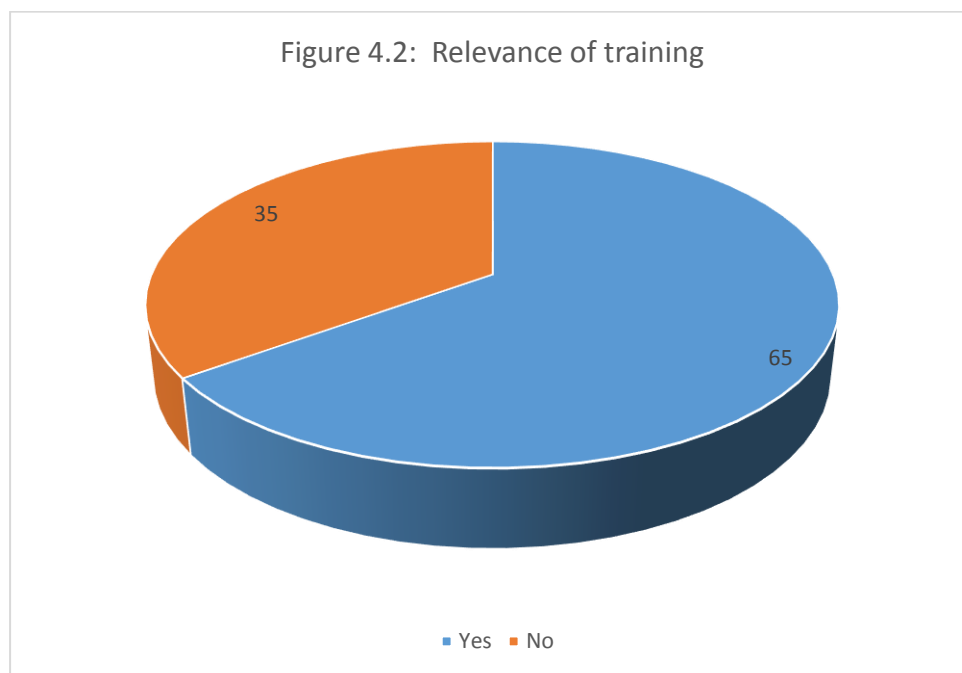


Only 38 out of the survey participants reported having undergone in-service training in the last two years, while 62 stated that they had not received such training during that period when asked about their participation in training programs over the past two years.

Regarding the frequency of training, the largest group of respondents, comprising 32 individuals, mentioned that they rarely received training. Following closely, 27 respondents stated that they occasionally received training. On the other hand, 19 participants revealed that they had never received any form of training. Only 7 respondents claimed to receive training very frequently, while 15 indicated that they received training quite often. This suggests a potential gap in professional development opportunities that may need addressing.

Table 4.2: Training of Employees

Frequency of Training	Frequency	Percentage
Never	19	19.0
Rarely	32	32.0
Sometimes	27	27.0
Often	15	15.0
Very often	7	7.0
Total	100	100.0



On the relevance of the training, 35 of the respondents said the trainings they received relevant whiles 65 said the trainings were not relevant. Since only 38 said they had received trainings in the past 2 years then it is save to assume that the trainings were relevant.

As much as 28 of the respondents said they benefited from the trainings they received, 35 respondents said they received some sort of benefits from the trainings offered while as much as 22 of the respondents said they have not received any benefits of the training and 15 said they have received not much benefits from trainings offered.

Table 4.3: Relevancy of Training

Benefit of the training	Frequency	Percentage
A great deal	28	28.0
Some	35	35.0
Not much	15	15.0
Not at all	22	22.0
Total	100	100.0

Table 4.4: Challenges Employees Faced During Training

Challenges faced in the training	Frequency	Percentage
Training not relevant to job	24	24.0
Training not at a convenient time	16	16.0
Training not well organized	39	39.0
I have to take time off to attend training	21	21.0
Total	100	100.0

A significant number of respondents, comprising 24 individuals or 24.0% of the total, reported that one of the primary challenges they faced during their training was the perception that the training they received was not directly applicable to their job roles. Another challenge highlighted by 16 respondents, representing 16.0% of the total, was

the timing of the training sessions. These individuals found that the training schedules were not arranged at times that were convenient for them, which could have caused disruptions in their work routines. The majority of respondents, specifically 39 individuals or 39.0% of the total, expressed dissatisfaction with the organization of the training programs. And finally notable portion of respondents, accounting for 21 individuals or 21.0%, faced the challenge of having to take time off from their regular work duties in order to attend training sessions. This could have implications for their workloads and productivity during the training period.

Table 4.5: Applicability of the Training

Ways to improve training	Frequency	Percentage
Training should be made relevant to the job	26	26.0
Training should be at a more convenient time	54	54.0
Training should be better organized	11	11.0
Financial compensation should be given to attendees	9	9.0
Total	100	100.0

It was realized from the interviews that most of the interviewees said they provide in-service training is conducted on a regular basis, with a strong emphasis on continuous learning and development. This frequency underscores the organization's commitment to enhancing the skills and knowledge of its employees. Respondents believe that the in-service training provided aligns closely with the specific job roles and responsibilities of employees. This alignment is crucial for ensuring that training programs are tailored to meet the practical needs of the workforce. Feedback from

employees indicates that in-service training has a positive impact on job performance. It leads to enhanced skills and increased confidence among those who have undergone training, which are essential elements for improved performance. The data suggests that in-service training contributes to increased productivity. Trained employees tend to work more efficiently, make fewer errors, and are better equipped to handle complex tasks. This aligns with the organization's goals of achieving higher productivity through skill development. Several challenges in providing in-service training were identified. These challenges include the need to align training schedules with employees' workloads, addressing technological barriers, and securing adequate resources for training programs. Additionally, evaluating the long-term impact of training poses a challenge. Respondents provide valuable suggestions for improving in-service training. These include tailoring training to individual learning styles and preferences, integrating hands-on exercises to enhance practical skills, and providing ongoing opportunities for practice and skill reinforcement. Offering a variety of training formats, such as online courses or workshops, is also recommended to cater to different learning needs.

A significant portion of the respondents, comprising 26 individuals or 26.0% of the total, emphasized the importance of aligning training content with the specific job roles of the participants. The most prominent suggestion, as highlighted by 54 respondents or 54.0% of the total, was the need for training sessions to be scheduled at more convenient times. A small number of respondents, 11 individuals (11.0%) of the total, recommended improving the overall organization of training programs while, 9 individuals (9.0%) of the total, suggested providing financial compensation to attendees as a means of incentivizing participation in training programs.

Table 4.6: The Use of ICT to Perform Duties

Use of ICT in work	Frequency	Percentage
Never	13	13.0
Rarely	18	29.0
Sometimes	39	47.0
Often	13	9.0
Very Often	17	2.0
Total	100	100.0

On the use of ICT in their various roles in the university, 13 individuals (13.0% of the total) reported that they never use ICT in their work. This suggests a minority of respondents who do not engage with technology in their daily tasks. As much as 18 individuals (18.0%), indicated that they rarely use ICT, implying that technology plays a limited role in their work. The majority, 39 individuals (39.0%), stated that they sometimes use ICT in their work. This signifies a substantial portion of respondents who employ technology intermittently. A smaller number, 13 individuals (13.0%), reported often using ICT, indicating a group of more frequent technology users and just small percentage, just 17 individuals (17.0%), mentioned that they use ICT very often in their work, highlighting a minority of highly tech-reliant individuals. This result showcases a range of ICT utilization patterns among the respondents, with the majority falling into the 'sometimes' category, suggesting that ICT is integrated into their work to varying degrees.

From the table 4.7 below, the research focused on how ICT can be leveraged to enhance supervision. Respondents provided their perspectives on different ways to achieve this.

The most common suggestion, made by 34 individuals (34.0%), was the provision of online training materials. This indicates that a significant portion of respondents believes that making training materials accessible online can enhance supervision. 25 respondents (25.0%) proposed allowing employees to access training materials, implying that this autonomy in accessing resources is seen as a valuable aspect of supervision. A total of 20 individuals (20.0%) suggested the importance of providing feedback to employees using ICT, underlining the role of technology in facilitating communication and feedback loops. Tracking employee progress was recommended by 21 respondents (21.0%), demonstrating that monitoring and assessment through ICT is considered a useful aspect of supervision. These responses reflect a consensus among respondents that ICT can be a valuable tool for improving supervision through various means.

Table 4.7: Improving Supervision using ICT

Improving supervision using ICT	Frequency	Percentage
Provision of online training materials	34	34.0
Allowing employees to access training materials	25	25.0
Provision of feedback to employees	20	20.0
Tracking employee progress	21	21.0
Total	100	100.0

Table 4.8: Challenges in Using ICT for In-Service Training or Supervision

Challenges in using ICT in training and supervision	Frequency	Percentage
No access to ICT	37	37.0
ICT not compatible with existing systems	23	23.0
Lack of technical know how	31	31.0
High cost of ICT	29	29.0
Total	100	100.0

Respondents identified the difficulties they encounter when employing ICT in training and supervision. 37 individuals (37.0%) reported having no access to ICT, indicating a significant portion of respondents facing a lack of technology infrastructure. 23 respondents (23.0%) mentioned that ICT is not compatible with existing systems, highlighting a compatibility issue that affects their training and supervision efforts. 31 individuals (31.0%) cited a lack of technical know-how as a challenge, indicating the importance of digital literacy. High cost of ICT was mentioned by 29 respondents (29.0%), suggesting financial constraints as a barrier to effective ICT implementation in training and supervision. These challenges underscore the multifaceted nature of obstacles associated with integrating ICT into training and supervision.

Table 4.9: Ways in Which ICT Can Be Used To Overcome Challenges

Overcoming the challenges using ICT	Frequency	Percentage
Providing access to technology	42	42.0
Make ICT compatible with existing systems	24	24.0
Training employees on how to use technology	22	22.0
Reducing the cost of ICT	12	12.0
Total	100	100.0

The table 4.9 above shows the strategies that respondents believe can help overcome the challenges posed by ICT in training and supervision.

The most common suggestion, made by 42 individuals (42.0%), was providing access to technology, which implies addressing the issue of inadequate access. 24 respondents (24.0%) proposed making ICT compatible with existing systems, suggesting that compatibility issues can be mitigated. 22 individuals (22.0%) recommended training employees on how to use technology, emphasizing the importance of digital skills development. Reducing the cost of ICT was suggested by 12 respondents (12.0%), indicating that cost-related barriers can be addressed through cost-effective solutions. These strategies indicate the diverse approaches that respondents believe can be employed to overcome ICT-related challenges in training and supervision, with a focus on accessibility, compatibility, skills development, and cost reduction.

The findings regarding the integration of Information and Communication Technology (ICT) in training and supervision within the organization in the views of the interviewees reveal several key insights:

ICT plays a crucial and pervasive role within the department. Most employees regularly utilize ICT tools and systems to carry out a wide range of tasks, including research, data analysis, and administrative functions. This widespread adoption of ICT signifies its importance in daily operations. Respondents strongly believe that ICT can significantly enhance the effectiveness of in-service training. ICT offers various opportunities to achieve this, including providing access to online resources, interactive simulations, and collaborative learning platforms. Moreover, it allows for personalized and flexible training experiences, catering to diverse learning needs and preferences.

The data suggests that ICT can be harnessed to improve the supervision of employees. It enables real-time monitoring of employee progress, facilitates regular and efficient communication between supervisors and their teams, and provides data-driven insights into performance. Additionally, virtual meetings and digital feedback mechanisms streamline the supervision process, making it more dynamic and responsive. Several challenges associated with the use of ICT for in-service training and supervision were identified. These include ensuring that all employees have access to the necessary technology, addressing concerns related to data security and privacy, and providing adequate training and support for individuals who may not be fully comfortable with ICT tools.

Respondents highlight initiatives aimed at addressing these challenges. Efforts are underway to provide access to technology for all employees, ensuring equitable access.

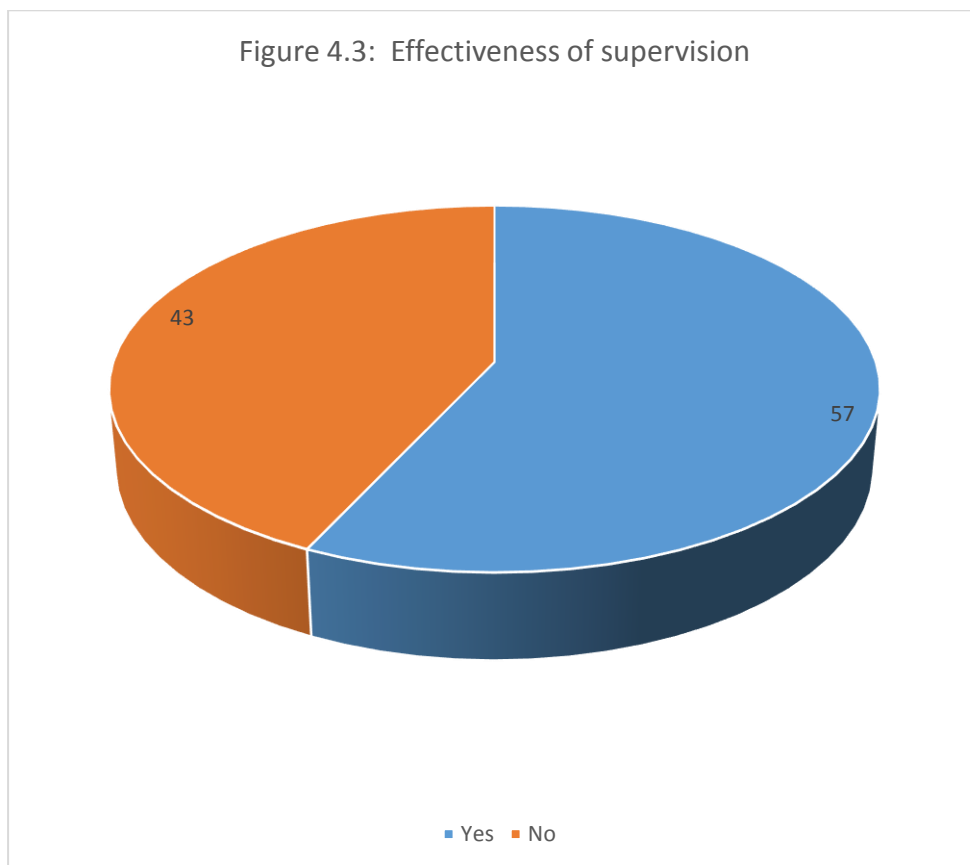
Robust security measures are being implemented to safeguard data and privacy. Furthermore, training and support programs are being developed to enhance ICT literacy among employees, bridging the gap for those less familiar with technology. In conclusion, the findings underscore the pivotal role of ICT in the organization, from daily tasks to training and supervision. Respondents recognize the immense potential of ICT in enhancing training effectiveness and improving supervision processes. While challenges exist, the organization is proactively addressing them through initiatives aimed at improving technology access, security, and digital literacy. The integration of ICT is seen as a valuable strategy for optimizing training and supervision practices within the department.

Table 4.10: Frequency Employees Received Supervision

Frequency of supervision	Frequency	Percentage
Never	11	11.0
Rarely	19	19.0
Sometimes	29	29.0
Often	25	25.0
Very often	16	16.0
Total	100	100.0

This table presents data on the frequency of supervision experienced by respondents in their work settings. It provides insights into how often employees receive supervision. A total 11 respondents (11.0%) reported that they never receive supervision. This suggests a minority of respondents who do not have regular oversight in their work. 19 respondents (19.0%) stated that they rarely receive supervision, indicating that

supervision is infrequent for this group. The majority, 29 individuals (29.0%), mentioned that they sometimes receive supervision, implying that supervision is intermittent but not a rare occurrence. 25 individuals (25.0%) reported often receiving supervision, indicating that a significant portion of respondents have frequent oversight. A notable percentage, 16 individuals (16.0%), mentioned that they very often receive supervision, highlighting a group of employees who experience close and consistent monitoring in their work. This data demonstrates a range of supervisory experiences among respondents, with the majority falling into the 'sometimes' and 'often' categories, indicating that supervision frequency varies across different workplaces.



In the figure above, respondents were asked to evaluate the effectiveness of the supervision they receive in their work. 57 individuals (57.0% of the total) answered that they believe supervision is effective, indicating a majority who perceive their

supervision positively. 43 respondents (43.0%) answered negatively, stating that they do not find supervision effective, highlighting a significant minority with reservations about the quality of supervision. This data reflects a split in respondent perceptions regarding the effectiveness of supervision, with a slight majority expressing satisfaction.

This figure below explores how respondents perceive the relevance of supervision to their job roles. 45 individuals (45.0% of the total) strongly agree that supervision is relevant to their work, indicating a strong consensus among this group about the importance of supervision. 15 respondents (15.0%) agree that supervision is relevant, showing agreement but to a lesser extent. 24 individuals (24.0%) are neutral about the relevance of supervision, suggesting a range of perspectives within this category. 9 respondents (9.0%) disagree with the statement, indicating a minority who do not find supervision highly relevant. 7 individuals (7.0%) strongly disagree with the statement, reflecting a small but vocal group who believe supervision is not relevant to their work. These responses demonstrate diverse viewpoints on the relevance of supervision, with a majority affirming its significance.

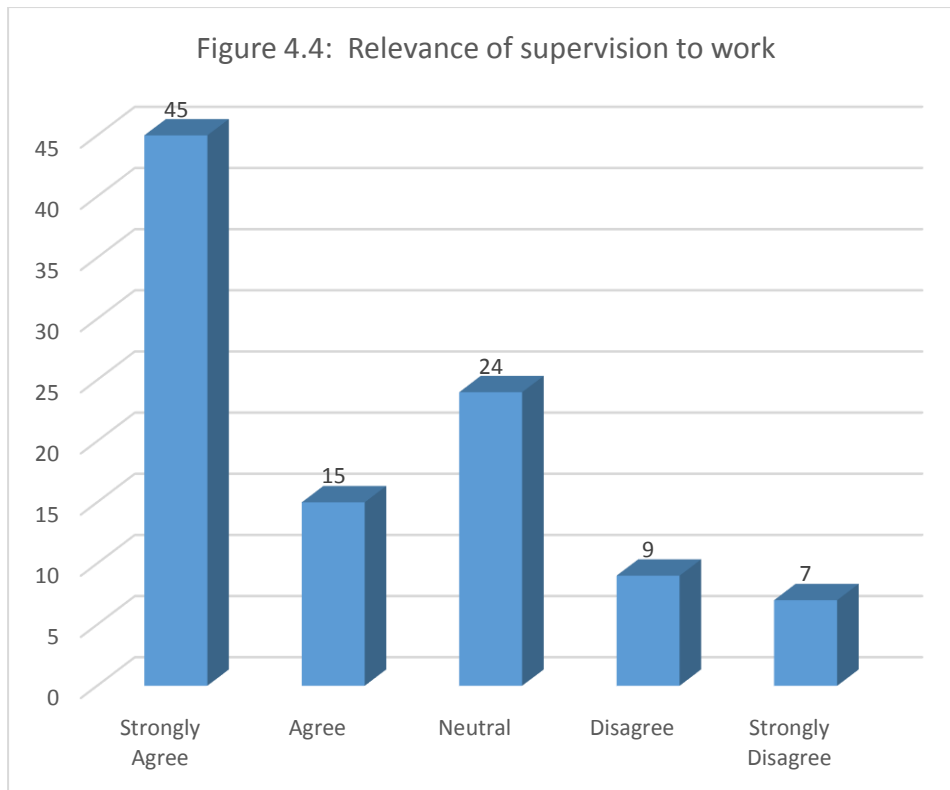


Table 4.11: Connection of Supervision to Job Performance

Connection of supervision to job performance	Frequency	Percentage
Provision of feedback	38	38.0
Problem solving	33	33.0
Provision of training	11	11.0
Provision of motivation	18	18.0
Total	100	100.0

This table 4.11 above outlines the different aspects of job performance that respondents believe supervision is connected to. Provision of feedback was cited by 38 individuals (38.0%) as a key aspect of supervision, indicating that feedback is perceived as an integral component of effective supervision. Problem solving was mentioned by 33 respondents (33.0%), highlighting the role of supervision in addressing and resolving

work-related issues. 11 individuals (11.0%) stated that supervision involves the provision of training, underlining its importance in skill development. Provision of motivation was noted by 18 individuals (18.0%), suggesting that supervision can serve as a source of encouragement and inspiration for employees. These responses underscore the multifaceted nature of supervision and its various links to job performance.

This table 4.12 below outlines the challenges that respondents face when receiving supervision. A total of 33 individuals (33.0% of the total) cited the unavailability of supervisors as a challenge, indicating that some employees struggle to access their supervisors when needed. 23 respondents (23.0%) mentioned that supervisors are not helpful, suggesting a lack of support or guidance in their supervisory interactions. 44 individuals (44.0%) indicated that supervisors are too critical, highlighting a common perception that supervision can be overly harsh or judgmental. These challenges shed light on the difficulties encountered by respondents in their interactions with supervisors.

Table 4.12: Challenges in Receiving Supervision

Challenges in receiving supervision	Frequency	Percentage
Supervisor is not available	33	33.0
Supervisor is not helpful	23	23.0
Supervisor is too critical	44	44.0
Total	100	100.0

This table 4.13 below presents suggestions from respondents on how supervision can be improved in their workplace. The most common suggestion, made by 44 individuals (44.0% of the total), is that supervisors should be more available, indicating a desire for increased accessibility. 17 respondents (17.0%) recommended that supervisors should be more helpful, emphasizing the need for additional support and guidance. 39 individuals (39.0%) suggested that supervisors should be less critical, underscoring a desire for a more constructive and less judgmental approach to supervision. These suggestions provide valuable insights into the expectations and preferences of respondents regarding the enhancement of supervision in their work environments.

Table 4.13: Ways of Improving Supervision

Improving supervision	Frequency	Percentage
Supervisor should be more available	44	44.0
Supervisor should be more helpful	17	17.0
Supervisor should be less critical	39	39.0
Total	100	100.0

The findings pertaining to employee supervision within the organization reveal several important insights which include, Supervision in the department is conducted regularly. This regularity signifies the commitment to ongoing oversight and support for employees. Respondents express a belief in the effectiveness of their supervision practices. They consider supervision to be instrumental in providing guidance, support, and constructive feedback to employees. This perception aligns with the intended purpose of supervision, which is to enhance employee performance and development.

The data suggests that supervision has a positive impact on job performance. It has been instrumental in addressing challenges, establishing clear performance expectations, and fostering a culture of continuous improvement. Challenges associated with receiving supervision were identified. These challenges include aligning supervision schedules with varying work shifts, ensuring consistent quality in supervision across different teams, and addressing potential communication gaps that may arise between supervisors and employees. Respondents provide insights into potential improvements for supervision practices. Initiatives include providing additional training to supervisors in effective leadership and communication skills. Additionally, the exploration of more flexible supervision options is underway to accommodate the diverse work schedules and needs of employees.

Table 4.14: Challenges Associated With Integration of Technology in Supervision and In-Service Training

Challenges faced in integrating technology	Frequency	Percentage
Lack of access to technology	19	19.0
Lack of compatibility with existing systems	35	35.0
Lack of comfort in using technology	24	24.0
High cost of technology	22	22.0
Total	100	100.0

In this table, respondents shared the challenges they encountered when attempting to integrate technology into their work processes. These challenges shed light on the barriers and obstacles that organizations and individuals may face when adopting new technology.

A notable challenge reported by 19 individuals, constituting 19.0% of the total, is the limited access to technology. This suggests that a significant portion of respondents may not have sufficient access to the necessary technological tools or devices in their work environments, hindering their ability to integrate technology effectively. The most prevalent challenge mentioned by respondents, with 35 individuals or 35.0% of the total, is the lack of compatibility between new technology and existing systems. This indicates that many respondents face difficulties in integrating technology seamlessly with their current infrastructure or software, potentially causing workflow disruptions. A substantial portion of respondents, comprising 24 individuals or 24.0%, expressed discomfort or unease in using technology. This suggests that some employees may require additional training or support to become more proficient and confident in their technology usage. Another significant challenge cited by 22 individuals, representing 22.0% of the total, is the high cost associated with acquiring and implementing technology. This highlights a financial barrier that organizations and individuals must overcome when adopting new technology solutions. These challenges underscore the multifaceted nature of the difficulties faced when integrating technology into the workplace, ranging from access and compatibility issues to comfort and financial constraints.

In the table below, respondents identified the opportunities and advantages linked to the integration of technology into their work processes. These opportunities highlight the potential benefits and positive outcomes that technology can bring to organizations and employees.

The most frequently mentioned opportunity, reported by 41 individuals or 41.0% of the total, is the ability to provide training and supervision to a larger number of employees. This suggests that technology can facilitate the scalability of training and supervision efforts, making it possible to reach a broader audience. Another valuable opportunity identified by 27 respondents, comprising 27.0% of the total, is the ability to offer personalized training and supervision experiences. This implies that technology can be leveraged to tailor learning and guidance to individual needs and preferences. A significant proportion of respondents, with 32 individuals or 32.0% of the total, recognized the opportunity for tracking employee progress through technology. This highlights the potential for data-driven insights into employee development and performance. These opportunities demonstrate the potential advantages of integrating technology into the workplace, including increased reach, personalization, and data-driven decision-making. Organizations and individuals can leverage these opportunities to enhance their training and supervision efforts.

Table 4.15: The Opportunities Associated With the Integration of Technology in Supervision and In-Service Training

Opportunities associated with the integration of		
technology	Frequency	Percentage
Provision of training and supervision to many employees	41	41.0
Provision of personalized training and supervision	27	27.0
Tracking of employee progress	32	32.0
Total	100	100.0

To address the identified challenges and leverage the opportunities associated with technology integration, the organization is actively pursuing several strategies:

- **Change Management:** Comprehensive change management strategies are being implemented to address resistance to technological change. These strategies aim to engage employees, communicate the benefits of technology, and ease the transition.
- **Tech Proficiency:** Training and support programs are being offered to employees to enhance their technological proficiency. This addresses the challenge of ensuring that all employees are comfortable with the technology being introduced.
- **Collaboration with IT:** Collaboration with IT departments is a critical step in ensuring the smooth integration of technology. This collaboration includes addressing technical issues, maintaining data security, and optimizing technological resources.
- **Partnerships with Tech Providers:** Exploring partnerships with technology providers is another avenue being pursued to optimize training and supervision processes. Such partnerships can bring expertise and solutions that enhance the effectiveness of technology integration.

In summary, the findings highlight the challenges and opportunities associated with integrating technology into supervision and in-service training processes. While challenges include integration issues and employee resistance, opportunities lie in expanded reach, personalization, data-driven improvements, and flexible supervision. The organization's proactive approach, including change management, tech proficiency

training, collaboration with IT, and partnerships, demonstrates its commitment to harnessing the benefits of technology for improved training and supervision outcomes.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter serves as the culmination of the research study, drawing upon the extensive data analysis and discussions of findings presented in the previous chapters. It offers a comprehensive conclusion that encapsulates the key insights derived from the research on the impact of supervision, in-service training, and the integration of technology on employee performance within the AAMUSTED, Mampong Campus. Additionally, this chapter provides practical recommendations that are aimed at guiding human resource managers and decision-makers in optimizing staff performance and achieving organizational objectives.

5.2 Summary of Findings

The research conducted within the AAMUSTED, Mampong Campus has yielded significant findings that shed light on several critical aspects related to employee performance, in-service training, supervisory practices, and the role of technology within the organization. These findings include:

The demographic analysis unveiled a workplace landscape characterized by a slight male dominance, hinting at potential gender dynamics within the organization. A significant proportion of employees, particularly between the ages of 31 and 40, painted a picture of a relatively young and potentially innovative workforce. This age distribution indicated that the institution attracted and retained talent across generations. Notably, the majority of employees boasted tertiary education qualifications, pointing to a commendable commitment to higher education and

personal growth. Moreover, a substantial number of employees had accumulated over a decade of professional experience within the institution, signifying a deep pool of institutional knowledge and expertise.

In the realm of in-service training, the study found that only 38% of respondents reported undergoing such training in the past two years. This statistic raises questions about the frequency and accessibility of professional development opportunities within the organization. However, it is crucial to note that those who did receive training overwhelmingly considered it relevant and beneficial to their job roles. This dichotomy suggests that while there might be room for improvement in the accessibility and frequency of training, the content and quality of training programs are generally commendable. Challenges in the realm of training included perceptions of irrelevance, inconvenient timing, disorganization, and the need for employees to take time off work, all of which underscore the importance of addressing logistical and motivational barriers to training.

Within the context of supervision practices, the study uncovered a robust culture of regular supervision within the department. These supervisory interactions were marked by a strong emphasis on continuous learning and development. Respondents consistently perceived supervision as an effective tool that played a pivotal role in addressing challenges, setting clear performance expectations, and fostering a culture of continuous improvement. However, challenges associated with supervision were also evident. These challenges encompassed aligning schedules among busy employees, addressing technological barriers that might hinder remote or digital

supervision, and contending with resource constraints that could potentially limit the scope and effectiveness of supervision initiatives.

In terms of the integration of Information and Communication Technology (ICT), the research found that a majority of respondents reported using ICT in their daily work. Nevertheless, the frequency and extent of ICT usage exhibited considerable variation. This underscores the need for further exploration of how different employees leverage technology in their roles. Respondents, collectively, harbored the belief that ICT had the potential to significantly enhance in-service training and supervision practices. This perception indicates a willingness to embrace technological solutions for professional development and performance improvement. However, it is essential to acknowledge the presence of challenges in this domain. These challenges encompassed limited access to necessary technology, compatibility issues that hinder seamless integration of ICT with existing systems, disparities in digital literacy, and concerns related to the high costs associated with acquiring and maintaining ICT infrastructure.

Despite these challenges, respondents recognized numerous opportunities linked to the integration of ICT. These opportunities included expanding the reach of training initiatives, personalizing learning experiences to better suit individual needs, implementing mechanisms for tracking employee progress and performance, and enabling more flexible supervision options. To overcome the obstacles in technology integration, various strategies were identified. These encompassed initiatives to provide greater access to technology, efforts to make ICT systems more compatible with existing platforms, comprehensive digital literacy training programs for employees, and

the exploration of cost-effective approaches to reduce the financial burden associated with ICT adoption.

In summary, the findings of this study highlight the complex interplay between demographic factors, training, supervision practices, and technology integration within the organization. These insights provide a robust foundation for crafting tailored recommendations to enhance employee performance, professional development, and organizational effectiveness.

Building upon the research findings, several key conclusions can be drawn, each of which holds significant implications for the organization's human resource management practices:

The research affirms that in-service training, when provided, is indeed relevant and beneficial to employees. This underscores the organization's commitment to fostering employee growth and development. Nevertheless, the study highlights critical challenges, including issues related to timing, perceived irrelevance, disorganization, and the necessity for time off during training. These challenges need to be systematically addressed to maximize the effectiveness of training initiatives. To address these challenges, the organization should concentrate on enhancing the accessibility of training programs, making them available to a more extensive range of employees. Additionally, a more individualized approach to training, aligning with specific job roles and employee needs, can enhance its impact.

Supervision is recognized as a pivotal tool for addressing challenges, setting performance expectations, and fostering a culture of improvement. It plays a crucial role in employee development and performance enhancement. While supervision is generally perceived positively, challenges persist, particularly concerning alignment with varying work schedules and the provision of constructive feedback. These issues necessitate a more dynamic approach to supervision. Exploring more flexible supervision options that accommodate diverse schedules and job roles is imperative. Investing in supervisor training to enhance their leadership and communication skills can lead to more constructive supervisory interactions.

The integration of Information and Communication Technology (ICT) holds immense potential for elevating training and supervision practices. It can expand the reach of training, personalize learning experiences, and enable data-driven decision-making in supervision. However, barriers such as limited technology access, compatibility issues, digital literacy gaps, and high costs must be effectively overcome. Addressing these challenges should be a priority. Implementing comprehensive digital literacy programs for employees can bridge the knowledge gap and boost confidence in using technology effectively. The organization should explore cost-effective technology solutions, partnerships with tech providers, and strategies for reducing the financial burden associated with ICT adoption.

5.3 Recommendations

In light of the research findings, the following recommendations are proposed:

1. In-Service Training:

- Develop a structured training calendar that aligns with employee schedules.
- Tailor training content to individual learning styles and preferences.
- Integrate hands-on exercises into training programs to enhance practical skills.
- Offer ongoing opportunities for practice and skill reinforcement.
- Provide a variety of training formats, including online courses and workshops.

2. Supervision:

- Conduct regular assessments of supervision quality to ensure consistency.
- Provide training to supervisors in effective leadership, communication, and feedback skills.
- Encourage supervisors to adopt a more supportive and constructive approach.
- Explore flexible supervision options to accommodate diverse work schedules.

3. Integration of Technology:

- Ensure equitable access to technology for all employees.
- Work on making new technology compatible with existing systems.
- Develop comprehensive digital literacy training programs for employees.

- Explore cost-effective technology solutions and financing options.

4. Organizational Collaboration:

- Foster collaboration between HR departments and IT departments to address technological challenges.
- Seek partnerships with technology providers to optimize training and supervision processes.

5. Monitoring and Evaluation:

- Implement a system for monitoring the long-term impact of training on employee performance.
- Continuously assess the effectiveness of supervision practices through feedback mechanisms.

5.4 Conclusion

In conclusion, this research study has provided valuable insights into the impact of supervision, in-service training, and the integration of technology on employee performance within the AAMUSTED, Mampong Campus. The findings emphasize the importance of addressing challenges and capitalizing on opportunities to enhance training, supervision, and technology integration. By implementing the recommended strategies, human resource managers and decision-makers can work toward optimizing staff performance, fostering a culture of continuous improvement, and achieving organizational excellence.

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APPENDIX
QUESTIONNAIRE

**AKENTEN APPIAH – MENKA UNIVERSITY OF SKILLS TRAINING AND
ENTREPRENEURIAL DEVELOPMENT
KUMASI – ASHANTI**

Introduction: Thank you for participating in this research study. Your responses are essential to help us understand the impact of in-service training, ICT usage, supervision, and technology integration at AAMUSTED. This questionnaire consists of five (5) sections designed to gather information about your experiences and perspectives. Please answer each question to the best of your ability.

Section 1: Demography

1. Age: a) Below 20 b) 20 – 29 c) 30 – 39 d) 40 – 49 e) 50 -60
f) Above 60
2. Gender: a) Male b) Female
3. Department/Unit: _____
4. Position/Job Title: _____
5. Years of Service at AAMUSTED: _____
6. Highest Educational Qualification: _____

Section 2: Impact of In-Service Training on Employee Productivity

7. Have you participated in any in-service training programs at AAMUSTED in the past two years? a) Yes b) No

If yes, please briefly describe the training program(s) you attended and their duration.

8. What specific skills or knowledge did you gain from in-service training that you believe contributed to your productivity?
9. How often do you receive in-service training?
 - a. Never
 - b. Rarely
 - c. Sometimes
 - d. Often
 - e. Very often
10. Do you feel that the in-service training you receive is relevant to your job?
 - a. Yes
 - b. No
 - c. Not sure
11. Has the in-service training you receive helped you to improve your job performance?
 - a. Yes
 - b. No
 - c. Not sure
12. To what extent has the in-service training you receive helped you to increase your productivity?
 - a. A great deal
 - b. Some
 - c. Not much
 - d. Not at all
13. What are some of the challenges you face in attending in-service training?
 - a. The training is not relevant to my job
 - b. The training is not at a convenient time
 - c. The training is not well-organized
 - d. I have to take time off from work to attend the training
 - e. Other (please specify)
14. What are some of the ways in which in-service training could be improved?
 - a. The training should be more relevant to my job
 - b. The training should be at a more convenient time
 - c. The training should be better organized
 - d. I should be given financial compensation for attending the training
 - e. Other (please specify)

Section 3: Role of ICT in Ensuring Effective In-Service Training and Supervision

15. How frequently do you use ICT tools and technologies (e.g., computers, software, online platforms) in your in-service training activities?
 - a. Never
 - b. Rarely
 - c. Sometimes
 - d. Often
 - e. Very often
16. Do you believe that the use of ICT has enhanced the effectiveness of in-service training at AAMUSTED?
 - a) Strongly agree
 - b) Agree
 - c) Neutral
 - d) Disagree
 - e) Strongly Disagree
17. To what extent do you use ICT in your work?
 - a. Not at all
 - b. Rarely
 - c. Sometimes
 - d. Often
 - e. Very often
18. Do you feel that ICT can be used to improve the effectiveness of in-service training?
 - a. Yes
 - b. No
 - c. Not sure
19. How can ICT be used to improve the supervision of employees?
 - a. By providing online training materials
 - b. By allowing employees to access training materials at their own pace
 - c. By providing real-time feedback to employees
 - d. By tracking employee progress
 - e. Other (please specify)
20. Please share an example of how ICT has positively impacted your in-service training or supervision processes.
21. What are some of the challenges in using ICT for in-service training and supervision?
 - a. Employees may not have access to ICT
 - b. ICT may not be compatible with the existing systems
 - c. Employees may not be comfortable using ICT
 - d. The cost of ICT may be prohibitive
 - e. Other (please specify)

22. What are some of the ways in which ICT can be used to overcome these challenges?
- a. Provide employees with access to ICT
 - b. Make ICT compatible with the existing systems
 - c. Train employees on how to use ICT
 - d. Reduce the cost of ICT e. Other (please specify)

Section 4: Relationship between Supervision and Employee Performance

23. How often do you receive supervision from your supervisor?
- a. Never
 - b. Rarely
 - c. Sometimes
 - d. Often
 - e. Very often
24. Do you feel that the supervision you receive is effective?
- a. Yes
 - b. No
 - c. Not sure
25. In your opinion, how does the quality of supervision you receive relate to your overall performance at AAMUSTED?
- a) Strongly agree
 - b) Agree
 - c) Neutral
 - d) Disagree
 - e) Strongly Disagree
26. How has the supervision you receive helped you to improve your job performance?
- a. By providing me with feedback
 - b. By helping me to solve problems
 - c. By providing me with training
 - d. By motivating me to do my best
 - e. Other (please specify)
27. What are some of the challenges you face in receiving supervision?
- a. My supervisor is not available when I need them
 - b. My supervisor is not helpful
 - c. My supervisor is too critical
 - d. Other (please specify)

28. What are some of the ways in which supervision could be improved?
- a. Supervisors should be more available
 - b. Supervisors should be more helpful
 - c. Supervisors should be less critical
 - d. Supervisors should provide more feedback
 - e. Other (please specify)

Section 5: Challenges and opportunities associated with the integration of technology in supervision and in-service training processes

29. What are some of the challenges associated with the integration of technology in supervision and in-service training processes?
- a. Employees may not have access to technology
 - b. Technology may not be compatible with the existing systems
 - c. Employees may not be comfortable using technology
 - d. The cost of technology may be prohibitive
 - e. Other (please specify)
30. What are some of the opportunities associated with the integration of technology in supervision and in-service training processes?
- a. Technology can be used to provide training and supervision to a wider range of employees
 - b. Technology can be used to provide more personalized training and supervision
 - c. Technology can be used to track employee progress
 - d. Technology can be used to improve