

The Effect of Employee Motivation on Employee Productivity Among Tertiary Education Workers: A Case Study of Takoradi Technical University

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Abstract

Employee motivation plays a vital role as a driving force within organisations, propelling employees to excel and contribute to achieving organisational objectives, and enhancing employees' skills, competencies, and knowledge to build their capacity to work effectively. The study aimed to examine the effect of employee motivation on productivity among tertiary education workers, using Takoradi Technical University as a case study. The research employed a deductive approach and quantitative methods, with a primary focus on surveys and statistical analysis, to achieve its research goals of describing and explaining phenomena. The study specifically focused on senior non-academic staff members at Takoradi Technical University, who were carefully selected through purposive sampling.

The researcher targeted the non-teaching staff members, who constituted 888, and a sample size (unit) of 221 was drawn. The study attained a response rate of 77%. Data collection used structured questionnaires with a Likert scale for participant responses. The collected data underwent thorough analysis, including descriptive statistics and regression analyses, conducted in SPSS, with a strong commitment to ensuring data reliability, validity, and ethical standards. According to the survey, increasing employee motivation is the most crucial way to raise productivity.

Motivational factors, including training, the work environment, and employee welfare, also influenced employee productivity. Employee relations had a considerable positive effect on productivity, while leadership style had a negative impact. To inspire workers and boost output, the study recommended that Takoradi Technical University establish recognition and reward systems, offer competitive pay and benefits, foster a positive work atmosphere, and provide opportunities for skill development and training.

Keywords: Naphthalene deposition; crude oil pipelines; flow assurance; aromatic hydrocarbons; crystallisation; pipeline fouling; pressure drop; computational fluid dynamics; solid deposition; petroleum transportation.

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1.0 INTRODUCTION

Employee motivation plays a vital role as a driving factor within organisations, propelling employees to excel and contribute toward achieving organisational objectives. The strong correlation between employee motivation and productivity has received considerable attention in organisational management. In the distinctive context of Takoradi Technical University, where responsibilities span education and administration, the association between motivation and productivity is particularly significant. This study investigates this relationship through an

extensive case study to reveal how motivation influences productivity in the university's environment.

By delving into the first-hand experiences and perspectives of staff members, the research seeks to uncover the intricate factors that fuel motivation. The study's implications go beyond the academic realm, providing valuable strategies to elevate engagement, dedication, and enthusiasm across diverse industries. Ultimately, by illuminating effective motivational strategies and their impact on productivity, this study contributes to both theoretical insights and practical applications, with the overarching goal of fostering organisational achievement.

1.1 Background to the Study

Organisations are increasingly recognising the need to be adaptable, resilient, and customer-centric to thrive in today's highly competitive local and global landscape. Consequently, organisations have taken on roles as strategic partners, employee advocates, and change mentors within their structures. The focus of modern human resources departments is on talent development and employee retention, emphasising the importance of enhancing employee motivation (Lai & Chen, 2021).

Employee motivation encapsulates a multifaceted progression within the organisational framework, comprising a sequence of initiatives set in motion, guided, and maintained to channel employees toward endeavours that align with specific objectives. This elaborate process is underpinned by a diverse spectrum of factors, spanning cognitive, emotional, social, and even biological dimensions, which collectively converge to trigger distinctive behavioural responses among individuals operating within the organisational sphere (Cherry, 2020). At its essence, employee motivation is a dynamic mechanism that propels employees to invest their skills, dedication, and vigour in tasks and undertakings, ultimately helping realise the organisation's goals.

The complex interplay among these cognitive, emotional, social, and biological elements creates a sophisticated framework that shapes employees' views, behaviours, and enthusiasm. This underscores the significance of motivation as a cornerstone for understanding the intricate dynamics that govern workforce engagement and productivity. This intricate concept manifests in two discernible forms: intrinsic and extrinsic motivation. Intrinsic motivation originates from within, driven by a sense of personal fulfilment and contentment derived from the work's inherent significance. Conversely, extrinsic motivation draws on external factors, such as concrete rewards like financial compensation, acknowledgements, and commendations, which serve as triggers that enhance employee commitment and engagement (Tranquillo & Stecker, 2016).

A deeper exploration of the multifaceted landscape of motivation reveals its extension across various dimensions. These dimensions encompass the initiation of actions, the perseverance to sustain effort over time, and the fervour and dedication with which tasks are approached, each contributing to the intricate fabric of motivation (Hockenbury, 2010; Zhou & Siu, 2015). This foundational cornerstone of organisational behaviour operates as a complex interplay of psychological forces that propel employees to approach their responsibilities with diligence and enthusiasm (Robbins & Judge, 2016).

Within this framework, intrinsic motivation arises from personal gratification, stemming from the inherent value individuals place on their work. In contrast, extrinsic motivation is externally driven, drawing its momentum from the allure of recognition and tangible incentives such as financial gain (Tranquillo & Stecker, 2016). Complementing this interplay of motivation is the concept of productivity, reflecting the proficient and effective deployment of employees' distinct skills, knowledge, and resources. It signifies the ability to channel these assets to achieve the organisation's objectives, serving as a tangible indicator of the symbiotic relationship between motivated employees and organisational triumph (Agyapong & Adjei, 2016).

In essence, the intricate interconnection between employee motivation and productivity vividly illustrates the driving forces that motivate individuals to embrace their work and contribute to broader organisational goals actively. By acknowledging the dualities of intrinsic and extrinsic motivation and comprehending the dimensions that underlie this phenomenon, organisations can devise strategies that amplify employee dedication, elevate job satisfaction, and ultimately enhance the adept realisation of their strategic pursuits (Nwachukwu & Nwosu, 2016).

Global empirical research has consistently indicated a strong correlation between employee motivation and productivity. The significance of intrinsic motivation in propelling employee performance has been studied (Deci et al., 1999). Similarly, the role of goal establishment in amplifying employee motivation and, consequently, productivity has also been explored (Latham & Pinder, 2005). Additionally, the presence of motivating elements, such as skill diversity and task importance, can significantly influence employee performance (Hackman & Oldham, 1980).

Turning to the African context, empirical studies have consistently stressed the relevance of employee motivation in driving organisational outcomes. In Kenya, the link between employee motivation and job performance has been established, with motivated employees exhibiting higher productivity (Njoroge, 2018). In Nigeria, intrinsic motivational factors, such as job satisfaction and meaningful work, have been established to be closely tied to heightened employee productivity (Ajila & Abiola, 2004). Moreover, cultural dimensions of motivation within African organisations have been shown to influence motivational strategies and, in turn, affect productivity (Pinder, 2008).

Many research projects conducted in Ghana have investigated the significance of employee motivation. These studies have analysed the way motivation affects employee performance across diverse sectors, confirming the beneficial influence of motivational elements on productivity (Agyapong & Adjei, 2016). Moreover, researchers have explored the relationship between motivation and the overall performance of organisations across sectors, showing that motivated employees typically enhance organisational outcomes (Adu-Agyei & Etsey, 2013). Furthermore, investigations have delved into the functions of intrinsic and extrinsic motivation within the specific context of Ghana, providing insights into the factors that propel employee productivity (Adjei, 2016).

It must be stated that the empirical studies conducted globally, across Africa, and particularly in Ghana collectively validate the pivotal role of employee motivation in shaping productivity. Given the positive impact of employee motivation on productivity, the researcher investigates this subject at Takoradi Technical University (TTU). Recognising the need to motivate employees in public institutions, the study aims to understand how TTU employees are motivated by their management and the extent to which this motivation influences their productivity. Through a case study conducted at TTU, this research aims to provide insights that inform both theoretical understanding and practical strategies for nurturing motivation and elevating productivity within educational institutions.

1.2 Statement of the Problem

Motivating staff in tertiary education is a complex and widespread challenge. An urgent concern for tertiary education workers is the difficulties institutions face in stimulating their workforce. A notable issue is the institution's struggle to adequately address the diverse requirements and interests of its staff (Zhenjing et al., 2022). This insufficiency undermines the establishment of an environment that fosters both employee satisfaction and motivation. This quandary is further compounded by factors such as job satisfaction, working conditions, and human resources development, which directly influence the levels of motivation experienced by tertiary education workers (Sinniah et al., 2022). The dedication and motivation exhibited by these workers are intrinsically linked to their attitudes towards their responsibilities and the extent of support extended by management (Sinniah et al., 2022). Moreover, inadequate management practices pose a significant challenge, notably hindering motivation and adversely affecting the tertiary education workforce (Zhenjing et al., 2022).

The negative impact of insufficient recognition and rewards on the morale and engagement of tertiary workers is dire (Kavanagh & Ashkanasy, 2006). This problem is exacerbated by unclear academic and administrative goals, which hinder the development of a focused, motivated workforce, as noted by Locke & Latham (2002). These difficulties are widespread globally (Judge et al., 2001; Maertz Jr et al., 2007), emphasising their universal nature. In situations where collectivism is important, like in the research of Ma & MacMillan (1999), the absence of recognition can dampen employee motivation. Furthermore, the influence of organisational cultures and leadership practices on African educational institutions, particularly considering the impact of culture on leadership styles (Mazodze, 2017), intensifies the negative effects of ineffective leadership.

The limited chances for career growth, particularly in African areas where one's career often depends on personal and family standing (Neneh, 2017), compound these difficulties. In the Ghanaian cultural context, communication dynamics and hierarchical administrative structures impede effective motivation strategies (Boohene et al., 2016). Also, insufficient recognition and financial incentives in Ghanaian universities weaken motivation (Amponsah-Tawiah & Mensah, 2013). The constraints of resources and competing priorities inherent in the Ghanaian education system contribute to the absence of paths for professional growth (Amoako, 2016).

The difficulties confronting higher education institutions in Africa, specifically in Nigeria and Ghana, have given rise to significant challenges that encompass not only academic but also organisational dimensions. These challenges, which carry profound implications, encompass issues such as a lack of motivation, insufficient acknowledgement, cultural influences, limited avenues for career advancement, communication obstacles, administrative hierarchies, and resource constraints (Oloyede & Olatoye, 2016; Adeyemo & Oduro, 2016; Anamuah-Mensah, 2016).

In Nigeria, the educational system has been marred by recurrent strikes and complications, resulting in disruptions to academic schedules and compromising the quality of education (Kavanagh & Ashkanasy, 2006). These strikes have detrimental effects on student morale, engagement, and academic performance, ultimately leading to elevated attrition rates and diminished productivity (Kavanagh & Ashkanasy, 2006). Furthermore, inadequate recognition and financial incentives in Nigerian tertiary institutions negatively affect intrinsic motivation. This, in turn, hinders both personal growth and the progress of these organisations (Fagbeja & Adeyinka, 2016). This issue extends to encompass organisational cultures and leadership gaps, further eroding motivation, employee satisfaction, job performance, and opportunities for career advancement (Ogolo & Emenike, 2016). In Ghana, a comparable situation exists. The looming threat of strikes, inefficiencies within the single-spine salary structure, and the deprivation of privileges for lecturers and staff have engendered significant demotivation and discontent (Amponsah-Tawiah & Mensah, 2013). Additionally, the paucity of professional development opportunities due to resource constraints impedes the growth of both individuals and institutions (Amoako, 2016).

Furthermore, the active involvement of entities such as the Teachers and Educational Workers' Union (TEWU) in the politics of these institutions has served as a demoralising factor, undermining the overall efficacy and endurance of these educational establishments (Mazodze, 2017). Barriers in communication and entrenched administrative hierarchies further undermine motivation strategies, resulting in decreased employee satisfaction and impeding the overall advancement and sustainability of these educational institutions (Boohene et al., 2016). Understanding the complexities of motivating tertiary education staff goes beyond borders, affecting institutions globally and, more distinctly, in Africa, especially in Ghana. This emphasises the need for tailored strategies that account for cultural, economic, and organisational factors.

Addressing these complexities is crucial not only for improving employee motivation but also for enhancing overall productivity, a key element of successful tertiary education. Several researchers have investigated the relationship between employee motivation and productivity. One study analysed the influence of motivation on employee performance in the public sector, revealing that job satisfaction serves as a mediating factor. It is important to note that this particular study did not explicitly address productivity and was conducted outside of Ghana (Nurlita, 2019). In another research effort, the role of motivation in employee performance was examined in the Ghanaian context. The findings indicated a significant impact of motivation on performance, although productivity was not the central focus (Seniwoliba & Nchorbonn, 2013).

Similarly, another study examined the relationship between employee motivation and productivity in Nigeria. This research demonstrated that both financial and non-financial factors substantially contribute to employee productivity. However, it is noteworthy that these studies did not specifically centre on the educational context or the Ghanaian setting (Bawa, 2017). Given the limited research conducted within the Ghanaian tertiary education landscape, particularly at TTU, and the existing gaps in the literature, it is essential to explore the relationship between employee motivation and productivity to yield valuable insights.

2.0 MATERIALS AND METHODS

2.1 Introduction

The considerable attention within organisational studies directed toward the relationship between employee motivation and productivity underscores its substantial influence on the effectiveness and achievements of institutions. This chapter provides an exhaustive examination of the pertinent literature on the complex interplay between employee motivation and productivity, with a specific focus on the tertiary education setting. The review adopts a global outlook, drawing on investigations conducted across diverse geographical regions, while also giving particular consideration to Africa and the distinctive case of Ghana, which serves as an intriguing subject of analysis. Through an analysis of existing scholarly works, theoretical frameworks, and empirical findings, this chapter seeks to establish a knowledge base that serves as the foundation for subsequent exploration of the impact of employee motivation on the productivity of tertiary education personnel at TTU.

2.2 Conceptual Review

As described by Nielsen (2009), a conceptual review involves assessing relevant publications related to the concepts explored in the study. In line with this, the present section critically examined two key concepts: employee motivation and employee productivity.

2.2.1 Employee motivation

Accounts of employee motivation date back to the early 20th century, when researchers and theorists began investigating the factors that influence employee behaviour in the workplace. A significant milestone in this field was the emergence of scientific management, pioneered by Frederick Taylor in the late 19th and early 20th centuries. Taylor's work aimed to identify the most efficient ways to perform tasks and introduced the concept of using financial incentives to motivate employees and increase productivity (Taylor, 1911).

In the mid-20th century, Abraham Maslow introduced his theory of the hierarchy of needs, which proposed that individuals have a hierarchical set of needs that drive their behaviour. Maslow emphasised the importance of fulfilling basic physiological and safety needs before addressing higher-level needs such as social belonging, esteem, and self-actualisation (Maslow, 1943). Another influential theory in the history of employee motivation is Frederick Herzberg's two-factor theory, also known as the motivation-hygiene theory. Herzberg's research in the 1950s and 1960s suggested that certain factors, such as achievement, recognition, and the nature of the work itself (motivators), contribute to job satisfaction and motivation. In contrast, other factors, such as working conditions and salary (hygiene factors), primarily prevent dissatisfaction (Herzberg et al., 1959).

Throughout the latter half of the 20th century, various other theories and frameworks emerged, contributing to our understanding of employee motivation. These include Douglas McGregor's Theory X and Theory Y, which proposed contrasting assumptions about employee motivation and management approaches (McGregor, 1960), and Edward Deci and Richard Ryan's self-determination theory, which emphasised the role of intrinsic motivation in driving behaviour (Deci & Ryan, 1985). In recent times, the field of employee motivation has seen further developments, such as the application of positive psychology principles. This includes utilising strengths-based approaches and job crafting to enhance motivation and well-being in the workplace (Seligman, 2011; Wrzesniewski & Dutton, 2001).

Employee motivation can be defined as the process through which an organisation initiates, guides and sustains the goal-oriented actions of its employees. It encompasses various cognitive, emotional, social, and biological factors that activate specific behaviours. It serves as the driving force behind human actions, influencing why individuals engage in particular activities (Cherry, 2020). Employee motivation involves the elements that direct and maintain goal-directed activities, emphasising the importance of understanding the underlying reasons for individuals' actions through behavioural observations (Nevid, 2013). Souders (2021) explains that employee motivation is an internal process that stems from an individual's inherent desire for change, either self-driven or influenced by the environment. It encompasses various desires related to attitudes, thoughts, feelings, environments, and relationships. The factors influencing employee behaviour need to be identified and examined. Several theories, such as drive theory,

humanistic theory, and instinct theory, have been proposed by experts to address these factors (Cherry, 2020).

Tranquillo & Stecker (2016) categorise employee motivation into two types: intrinsic and extrinsic. Intrinsic motivation arises from within the employee, driven by personal satisfaction and the desire to address challenges. Extrinsic motivation, on the other hand, originates from external sources and involves rewards such as recognition, praise, money, or trophies. Understanding employee motivation is crucial, as it influences employee behaviour and offers several benefits. It enables organisations to take appropriate action, encourages employees to adopt health-oriented behaviours, enhances employee efficiency in achieving goals, helps prevent unhealthy actions, empowers employees to take control of their lives, and improves overall happiness and well-being (Cherry, 2020). Employee motivation comprises three components: persistence, activation, and intensity. Persistence is the continuous effort to achieve a specific goal despite challenges. Activation involves the decision to initiate a particular behaviour, such as participating in a training session. Intensity refers to the strength and concentration applied in pursuing a goal, indicating the level of effort invested in the task (Zhou & Siu, 2015).

Motivation is a multifaceted concept that uncovers the various factors driving actions and choices. There are five types of motivation: achievement, affiliation, competence, power, and attitude motivation. Achievement motivation is the driving force behind the pursuit and persistence of specific goals. It represents an employee's desire to achieve objectives and progress to higher levels. The focus of achievement motivation lies in the intrinsic value of accomplishing tasks rather than the external rewards associated with them. This type of motivation is often compared to the Japanese management philosophy of Kaizen and is particularly important for professionals (Chand, 2018). On the other hand, affiliation motivation is the drive that stems from a person's social connections. Individuals with affiliation motivation tend to perform better in the workplace, especially when they receive recognition and praise for their cooperative behaviours. This type of motivation becomes particularly crucial in situations where monetary incentives are not the primary motivating factor, such as for minimum-wage employees and contingent professionals (Grant, 2008).

Competence motivation is the force that compels employees to excel in a specific area, allowing them to perform high-quality work. Employees driven by competence motivation strive to become masters of their craft and take pride in developing and utilising their problem-solving abilities. When faced with challenges, these employees often demonstrate creativity and rely on their experiences. Professionals such as heart surgeons, for example, experience this type of motivation when successfully performing complex procedures, such as a caesarean section (Mandel, 2021). Furthermore, power motivation is the driving force behind employees' efforts to enact change and influence others' emotions and behaviours. Employees with power motivation seek to make an impact within their organisations and are willing to take risks when undertaking specific tasks (Fodor, 2009). Lastly, attitude motivation relates to employees' feelings and thoughts. It encompasses their beliefs, self-confidence, and behaviours towards life. This type of motivation influences employees' outlook on the future and their responses to past experiences. In essence, attitude motivation shapes employees' thoughts and behaviours, with positive attitudes often influencing the trajectory of their careers (Chand, 2018).

2.2.2 Employee productivity

Over the years, employee productivity has remained a central focus in management and organisational studies. It has traditionally served as a measure of how efficiently and effectively employees perform their duties to achieve organisational goals. Scholars such as Campbell (1990) have stressed the importance of assessing employee productivity, as it enables the evaluation of individual and collective contributions to an organisation's overall success. Employee productivity refers to the level of output or work outcomes an individual generates within a specific timeframe. Campbell (1990) clarifies that this can be measured quantitatively using metrics such as sales figures, production units, or customer satisfaction ratings. However, productivity extends beyond mere output quantity to encompass qualitative factors such as creativity, innovation, and problem-solving abilities. This broader understanding recognises that employees' contributions go beyond numerical output.

Employee productivity encompasses various dimensions that contribute to overall performance. Borman & Motowidlo (1993) identify task performance as a crucial dimension,

representing the successful completion of job-related duties and responsibilities. Additionally, LePine et al. (2002) introduce the dimension of contextual performance, which includes behaviours that support the organisation as a whole. These behaviours encompass assisting co-workers, demonstrating organisational citizenship, and taking proactive steps to enhance the organisation's overall functioning. In a tertiary educational setting, employee productivity refers to the performance and outcomes of the personnel involved in delivering educational services. This includes faculty members, researchers, administrative staff, and others. Delaney & Huselid (1996) highlight factors such as teaching effectiveness, research productivity, student engagement, administrative efficiency, and contribution to the institutional mission and goals as crucial aspects of employee productivity within this context. In tertiary education, employee productivity plays a vital role in shaping students' educational and developmental outcomes.

Employee productivity measures for administrative roles at a tertiary institution encompass a range of responsibilities. Several common measures are used to evaluate administrative staff productivity in a tertiary educational setting. Firstly, the timeliness and accuracy of administrative tasks are assessed, focusing on staff's ability to complete assigned duties within specified deadlines and with high precision. This includes meeting deadlines for paperwork processing, responding promptly to inquiries, and maintaining accurate records (Smith, 2018). Efficiency in resource management serves as a critical measure in the operational context. In this domain, administrators bear the essential responsibility of coordinating diverse resources, ranging from financial allocations to physical infrastructure and specialised tools.

The assessment of productivity in this aspect relies on a comprehensive evaluation that encompasses prudent resource utilisation, the introduction of inventive cost-saving initiatives, and the strategic optimisation of resource distribution. These collective efforts converge to reinforce the institution's overarching objectives, creating an environment in which resource deployment seamlessly aligns with strategic aims. The scholarly viewpoint presented by Clark and MacLeod (2020) emphasises the importance of this dynamic, highlighting the integral role that proficient resource management plays in ensuring the sustained progression of organisations.

The significance of administrative efficacy is underscored by customer service and stakeholder contentment, underscoring an unwavering dedication to deliver exceptional service to both internal and external stakeholders, encompassing students, faculty, staff, and affiliated entities. This commitment transcends organisational boundaries, fostering constructive interactions across a diverse array of stakeholders. Methodically gathering and evaluating feedback from these groups facilitates assessing outcomes and measuring attributes such as responsiveness and professionalism within administrative functions. This comprehensive evaluation approach, as highlighted by Jones et al. (2019), sheds light on the dynamic interplay between administrative operations and stakeholder interactions, providing insights into the efficacy of administrative mechanisms in addressing diverse requirements. By prioritising customer service and stakeholder satisfaction, not only does efficiency improve, but also a reputation founded on reliability and empathy is nurtured, reinforcing a genuine commitment to stakeholders' welfare.

The scope of productivity metrics goes beyond measuring output, focusing on refining processes and optimising operations (Thomas & Reeves, 2017). Administrative effectiveness entails identifying and implementing process enhancements to improve efficiency and efficacy. This encompasses assessing workflows, eliminating redundancies, and employing technology to automate tasks (Thomas & Reeves, 2017). The evaluation assesses administrative personnel's capability to identify areas for process improvement and smoothly integrate changes into daily routines, aligning innovative practices with overarching strategic goals. This comprehensive approach amalgamates ingenuity, technological integration, and practicality to improve the operational landscape, resonating with modern efficiency-oriented paradigms and allowing resource allocation for strategic ventures. Ultimately, this evaluation of productivity underscores the active role of administrative staff in shaping a flexible operational framework (Thomas & Reeves, 2017). Evaluating administrative productivity through policy adherence and regulatory compliance is of utmost importance. This dimension involves thorough assessments to measure the extent to which institutional protocols and operational procedures are followed. These evaluations cover a spectrum of crucial elements, including the accuracy of record-keeping practices and the strict alignment with relevant legal requirements and industry benchmarks.

By closely examining these aspects, organisations ensure that their activities operate within a framework that upholds ethical norms, minimises potential risks, and maintains the institution's credibility. As underscored by Brown and Thompson (2016), this facet of administrative productivity highlights the essential role of adhering to established guidelines in protecting the organisation's reputation and nurturing a culture of responsible and accountable conduct.

Furthermore, a comprehensive evaluation accounts for the substantial contributions of administrative personnel to institutional initiatives. Their active involvement in diverse projects, spanning from proactive engagement to influential decision-making, assumes a central role in gauging productivity. The effective execution of multifaceted initiatives, including strategic planning, meticulous accreditation procedures, and committee involvement, serves as a benchmark for assessing their effectiveness in advancing the institution's goals. This all-encompassing assessment approach, as highlighted by Roberts et al. (2021), recognises the crucial role administrative staff play in advancing the institution's achievements. By assessing their level of participation, strategic acumen, and ability to translate plans into concrete outcomes, this dimension provides insights into the extent to which administrative endeavours contribute to the organisation's overall productivity and advancement.

Employee productivity is influenced by a range of factors that extend beyond individual performance. Parker and Wall (1998) emphasise the role of individual characteristics, motivation, job design, leadership, organisational culture, and work environment in shaping productivity levels. Moreover, Podsakoff et al. (2009) suggest that technological advancements, work-life balance, employee well-being, and learning and development opportunities also significantly impact employee productivity.

2.3 Theoretical Review

This study was built on the amalgamation of two pivotal theories: Maslow's hierarchy of needs and Herzberg's two-factor theory. These theories are fundamental pillars for investigating human motivation, offering a strong structure for understanding the complex factors that propel individuals across diverse situations.

2.3.1 Maslow's hierarchy of needs

This theory posits that individuals continually strive to fulfil their needs and prioritise them based on their importance (Saif et al., 2012). It is a motivational framework applicable in the workplace that recognises the ever-changing nature of human needs. As one need is satisfied, individuals desire to fulfil others as well (Tanner, 2022). Abraham Maslow developed a five-level theory that categorises and prioritises individual needs. These categories, arranged in a hierarchical order, include physiological needs, safety and security needs, social needs, esteem needs and self-actualisation needs. The hierarchy of needs follows the progression principle, stating that lower-level needs must be fulfilled before higher-level needs can be pursued. The deficit principle also suggests that once a need is satisfied, it no longer serves as a source of motivation, as attention shifts towards unmet needs. This hierarchy is often represented as a pyramid, with lower-level needs at the base and higher-level needs at the top (McLeod, 2020).

In an organisational context, Tanner (2022) explains that individuals starting their careers are primarily concerned with physiological needs, such as a stable income to support themselves and their families. Employees seek fair compensation as a means of survival and motivation. Additionally, employees have safety needs, which encompass a secure, hazard-free work environment. Safety contributes to employees' psychological well-being, and they value a workplace that prioritises their safety. Moreover, employees possess social requirements that involve their engagement with both superiors and colleagues (Robbins & Judge, 2019). The dynamics of these connections might vary according to employees' introverted or extroverted predispositions (Costa & McCrae, 1992), underscoring the importance of fostering an inclusive environment that promotes favourable interactions. The cultivation of beneficial relationships carries substantial weight, and managers can significantly shape an environment that fosters teamwork, thereby enhancing individual efficacy (Robbins & Judge, 2019). Effective managerial communication regarding organisational operations is important in satisfying employees' social needs. Once these needs are met, employees seek higher-level needs such as esteem and self-actualisation. Esteem needs are linked to employees' desire for recognition and respect from

others, while self-actualisation needs involve the desire for autonomy, challenging work, and professional growth within the organisation (Tanner, 2022).

It is important to note that Maslow's theory of motivation lays the groundwork for comprehending the intricacies of motivation, and employee drive is significantly shaped by all five constituents of this theory (Maslow, 1943; Pichère & Cadiat, 2015). This theoretical framework was employed to delve into the subsequent needs: physiological needs, concentrating on employee compensation; safety needs, encompassing the physical work setting; social needs, encompassing the degree of camaraderie and interaction among employees and managers; esteem needs, encompassing factors such as employees' self-assurance, esteem from peers, and acknowledgment of their competencies; and self-actualization needs, which entail employees' pursuit of self-fulfilment, personal advancement, and growth (Maslow, 1943).

2.3.2 Herzberg's two-factor theory

Saif et al. (2012) identified that this theory, also known as the motivator-hygiene theory, originated from a study conducted among accountants and engineering professionals to explore the factors that elicit positive or negative feelings towards work. Herzberg proposed five factors that contribute to employee motivation: achievement, recognition, responsibility, job content, and advancement. Additionally, Herzberg identified negative elements such as poor supervision, ineffective management styles, inadequate compensation, unfavourable working conditions, problematic relationships, and organisational politics that can demotivate employees. Organisations often apply this theory to foster personal growth, employee enrichment, and recognition (Golshan et al., 2011).

Herzberg's two-factor theory has faced criticism. Golshan et al. (2011) argued that the theory does not adequately differentiate between physical and psychological factors and fails to explain the distinctiveness of motivators relative to hygiene factors clearly. The theory also relies on qualitative assessments of satisfaction and dissatisfaction instead of utilising quantitative measures. Herzberg's Two-Factor Theory of motivation, often referred to as Herzberg's theory, was found to be pertinent for investigating how the administrative body of TTU formulates and implements strategies to enhance the overall welfare of its workforce (McLeod, 2023). This theory posits that distinct factors contribute to job satisfaction (motivators) and job dissatisfaction (hygiene factors) within the workplace (McLeod, 2023; Alrawahi et al., 2020). Motivators include recognition, challenging tasks, opportunities for growth, and a sense of accomplishment, whereas hygiene factors include pay, job security, working conditions, and interpersonal relationships (McLeod, 2023; Alrawahi et al., 2020). The presence of motivators can elevate job satisfaction and motivation, whereas the absence of hygiene factors can lead to dissatisfaction and reduced motivation (McLeod, 2023; Alrawahi et al., 2020).

By delving into Herzberg's theory, the study highlighted the critical significance of not only acknowledging but also proactively addressing the multifaceted motivational needs recognised by TTU's management (McLeod, 2023). The theory emphasised the importance of not only mitigating factors that could lead to employee discontent but also actively integrating motivators to enhance employee morale and commitment (McLeod, 2023). By understanding employees' distinct needs and aspirations, TTU's management could customise policies and practices to foster an environment conducive to nurturing motivation and overall well-being (McLeod, 2023). This theoretical framework provided a foundational perspective on the complexities of employee motivation at TTU, guiding the study toward insights into the interconnectedness between motivation and productivity within the institution's specific context (McLeod, 2023).

2.4 Empirical Review

This section provides a thorough analysis of relevant literature, focusing on two primary topics: factors affecting employee motivation and the challenges in the field. The intention is to explore in depth the substantial body of information across these areas and extract insights that illuminate the intricate mechanisms that govern motivation in work environments. Through exploring the factors shaping employee motivation and identifying barriers that might hinder its successful nurturing, a holistic understanding of the subject can be achieved. This review of literature strives to untangle the complex interplay of influences and obstacles that collectively shape the motivational panorama within organisational contexts.

2.4.1 Factors affecting employee motivation

1. Employee welfare

Employee welfare, which includes a wide range of activities outside the office, is a comprehensive approach to enhancing workers' well-being (Dufus & Chelladurai, 2018). Many factors are considered, including social connections, job satisfaction, financial stability, physical and mental health, and the balance between work and personal life. Personal and professional development is also taken into consideration (Heffernan, 2018; World Health Organisation, 2023). Employee welfare extends beyond the basic guarantee of a safe and healthy workplace. It seeks to create a work atmosphere where staff members feel respected, encouraged, and valued (Ahmad & Rahman, 2018). Employees are more likely to be diligent and fully engaged in their work when they experience well-being in both their personal and professional lives (Wright & Nishii, 2017).

A theoretical model outlining employee welfare, proposed by Dufus & Chelladurai (2018), incorporates a variety of components, including inputs, outputs, and outcomes. The work environment, employee benefits, managerial assistance, organisational policies and practises, and social support are some of the inputs (Ahmad & Rahman, 2018; Heffernan, 2018; Ahmad & Rahman, 2018; World Health Organisation, 2023; Wright & Nishii, 2017). Among the outputs are the following: monetary stability, contentment in one's work, equilibrium between work and personal life, social interaction, and advancement in one's career and personal life (Ahmad & Rahman, 2018; Heffernan, 2018; Ahmad & Rahman, 2018; World Health Organisation, 2023; Wright & Nishii, 2017).

According to Dufus & Chelladurai (2018), the outcomes include worker productivity, worker engagement, worker retention, and organisational performance. Employee wellbeing has several interrelated inputs and outputs. Improved physical and mental well-being, job satisfaction, and a healthy work-life balance can be the outcome of organisational policies and practises that support employee welfare, such as offering flexible work schedules, paid parental leave, and mental health support (Heffernan, 2018; World Health Organisation, 2023). These positive results can then result in improved organisational performance, increased staff productivity, engagement, and retention (Dufus & Chelladurai, 2018). This framework highlights how important it is to adopt a holistic approach to employee welfare because it not only looks out for the best interests of individual workers but also makes a substantial contribution to the general well-being and efficiency of organisations.

2. Employee relationship

Employee relationships, as elucidated within the context of motivation, encapsulate the calibre and essence of interactions, affiliations, and connections that individuals forge within the confines of an organisational milieu, encompassing their dealings with colleagues, superiors, and peers. These multifaceted associations wield a substantial impact on an employee's motivational disposition, job contentment, and overarching engagement with their professional endeavours (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Favourable and effective exchanges among co-workers, encompassing transparent communication, shared respect, confidence, and collaborative efforts, establish a solid basis that underpins a work environment promoting motivation and inspiration (Liden et al., 2015; Rhoades & Eisenberger, 2002; Rhoades, Eisenberger, & Armeli, 2001).

In a harmonious resonance spanning the scholarly landscape, a unanimous consensus prevails that affirmative employee relationships form the architects of an environment propitious for the cultivation of motivation. Researchers, driven by the objective of elucidating the inherent linkage between employee relationships and motivation, underscore the cardinal role played by effective communication and synergistic dynamics in the construction of robust employee relationships (Dysvik & Kuvaas, 2008). In this orchestration, the studies led by Liden and colleagues (2015) take center stage, delving into the impact of supportive supervisor-subordinate relationships, unveiling their catalytic role in elevating employee motivation. Extending the narrative's horizon to encompass diverse societal contexts, the insights of Bhattacharya and Krishnan (2008) come to the forefront, magnifying the intellectual imperative inherent in comprehending the significance of relationships. Collectively, these scholars spotlight the pivotal role of positive relationships as a nurturing bedrock for a motivational ecosystem, motivating

organisations to cultivate collaborative and supportive interactions that foster motivation's augmentation (Liden et al., 2015; Bhattacharya & Krishnan, 2008).

Within the dynamic African context, a distinctive narrative unfolds, in which the tapestry of communal values emerges as a potent influencer, endowing employee relationships with a cornerstone role in the symphony of motivation. Illuminating this intricate interplay, pioneering studies pave the way, with the work of Asiedu-Appiah and Kanjee (2016) serving as a beacon. Their objective, rooted in exploring the profound nexus between employee relationships and motivation in this culturally distinctive context, reveals a captivating insight: interpersonal bonds are a pivotal factor in nurturing motivation. Nurtured within the shared values of collectivist societies in Africa, these interpersonal bonds become a strong source of motivation, fostering a powerful sense of belonging and common goals. This profound finding underscores the pivotal role of social relationships as conduits for nurturing motivation, thereby intertwining the individual with the collective and cultivating heightened purpose and engagement (Nahapiet & Ghoshal, 1998).

Transposing the discourse onto the vibrant terrain of Ghana, the spotlight on employee relationships as a catalytic impetus for motivation gains a captivating luminescence. The meticulous research conducted by Amponsah-Tawiah and Mensah (2018) adorns the canvas of inquiry with vivid strokes, unveiling the profound contributions of positive relationships among colleagues and supervisors to employee motivation in Ghanaian academia. Their study's objective is to unravel the intricate nexus between employee relationships and motivation, particularly in Ghana's distinctive context. Penetrating the layers of their findings, a compelling revelation emerges: the presence of positive relationships is an invaluable wellspring for motivating employees in Ghana's academic sphere. These relationships, fostered through effective communication and support, lay the groundwork for heightened engagement and commitment.

In harmonious resonance, the work of Mensah and Adjei (2016) echoes Ghana's cultural ethos, underscoring the profound implications of the concept of "Ubuntu." Aligned to explore the role of this interconnectedness-driven concept in nurturing relationships that kindle motivation in the workplace, their findings reveal a profound truth: the embodiment of "Ubuntu" as a guiding principle fosters a culture of supportive relationships, nurturing an environment where motivation flourishes. This revelation emphasises the pivotal role indigenous cultural values play in shaping employee relationships and, by extension, motivation within the Ghanaian context.

3. Leadership style

In the realm of motivation, leadership style refers to how a leader interacts with and guides their team or subordinates to achieve organisational goals while influencing their motivation. This encompasses the array of behaviours, attitudes, and strategies a leader employs to steer, support, and inspire their team members towards shared objectives. Leadership style profoundly impacts employee motivation by shaping the work atmosphere, communication dynamics, decision-making procedures, and the overall rapport between leaders and their team. Diverse leadership styles, including transformational, transactional, servant, democratic, autocratic, and laissez-faire, can evoke varying degrees of motivation, job satisfaction, and engagement among employees based on how leaders convey expectations, offer feedback, empower team members, and foster a sense of purpose and direction (Goleman, 2019).

Scholars universally acknowledge the pivotal role of leadership style in shaping facets of employee motivation. The primary aim of multiple studies in this domain is to unravel the intricate dynamics underlying diverse leadership approaches and their consequential effects on employees' motivational landscape. A prime example is the seminal study by Gagne & Deci (2005), which underscores the paramount importance of transformational leadership in fostering intrinsic motivation by empowering autonomy and self-determination. Similarly, the insights of Luthans & Avolio (2003) highlight a positive correlation between transformational leadership and employee motivation, underscoring its instrumental role in cultivating an inspiring, empowered work environment.

The African context underscores the intricate relationship between leadership style and motivation, a connection deeply woven into the continent's cultural fabric. Values rooted in collectivism and community orientation exert a profound influence, offering a distinctive lens for viewing the impact of leadership on motivation. A notable study by Tlale and Ferreira (2013)

serves as a beacon in this context, revealing that transformational leadership aligns harmoniously with the cultural values prevalent in Africa. The study underscores how this leadership style enhances motivation by promoting empowerment and shared vision, underscoring the need to align leadership practices with the rich cultural dynamics to motivate effectively.

In Ghana, the convergence of leadership style and motivation assumes pivotal significance. The scholarly pursuit undertaken by Amponsah-Tawiah & Mensah (2018) delves deeply into the Ghanaian academic landscape, shedding light on the pronounced impact of transformational leadership on employee motivation within university settings. Further reinforcing this perspective, the research by Mensah & Adjei (2016) illuminates the role of participative leadership in motivating individuals. This finding resonates deeply with the Ghanaian cultural concept of "Ubuntu," emphasising interconnectedness and collaboration.

4. *Training and development*

Training and development constitute a systematic process aimed at enhancing employees' understanding, skills, and overall performance within a given organisation. This orchestrated endeavour involves planned actions and interventions to synchronise employees' abilities with the organisational requisites (Noe, 2017; Goldstein & Ford, 2002). This overarching process equips employees to contribute effectively, thereby fostering their career progression and cultivating a motivated workforce. Training serves to impart knowledge and skills pertinent to job-related functions (Tannenbaum & Yukl, 1992). In contrast, development aims to broaden aptitudes and mental frameworks for enduring career advancement (Kraiger et al., 1993). Activities such as workshops, mentorship, leadership initiatives, and exposure to diverse functions equip employees to tackle evolving roles, reflecting the organisation's commitment to growth and enriching the work environment.

Scholars universally concur that training and development initiatives significantly influence employee motivation. Researchers strive to elucidate the intricate nexus between training interventions and the subsequent amplification of employee motivation. For instance, Noe's (1986) study underscores the positive correlation between training opportunities and employee motivation, aligning seamlessly with the fundamental principles of self-determination theory as expounded by Deci and Ryan (1985). This perspective sheds light on how training and skill enhancement nurture employees' sense of competence, autonomy, and interrelatedness, thereby strengthening intrinsic motivation.

The African context accentuates the intricate rapport between training and development endeavours and motivation. Embedded within the cultural tapestry of Africa, where communal values wield substantial influence, the significance of training programs in fostering motivation takes centre stage. Muathe & Munyoki's investigation (2013) exemplifies this, revealing that training initiatives harmonise with the collectivist ethos ingrained in African societies, augmenting motivation through shared learning experiences. The resonance of aligning training content and delivery methods with cultural values finds resonance in the insights of Eze (2010), accentuating the imperative of cultural sensitivity for effective motivation enhancement.

Against the distinct backdrop of Ghana, the fusion of training and development with motivation emerges as a pivotal facet. Aryeetey & Ahlijah's (2014) exploration delves into the Ghanaian landscape, underscoring the substantial impact of public-sector training programs on employee motivation. Further bolstering this perspective, the study conducted by Mensah and Larsen (2019) sheds light on the role of skill development initiatives in instigating motivation across various Ghanaian industries. These insights align harmoniously with Ghana's cultural aspiration for growth and advancement, underscoring the role of training in actualising individual and collective ambitions.

5. *Conducive working environment*

A conducive work environment comprises interrelated circumstances and approaches within a company that, together, amplify employee motivation and holistic job satisfaction worldwide. This environment encompasses numerous essential elements that contribute to a constructive and empowering workplace, nurturing inherent motivation and dedication among staff members (Kuvaas, 2006; Deci & Ryan, 2000)

Numerous research studies highlight the importance of a conducive work environment in boosting employee motivation globally. This environment encompasses supportive leadership, effective communication, equitable reward systems, and opportunities for professional growth (Kuvaas, 2006; Deci & Ryan, 2000). Scholars stress that organisations that cultivate positive interpersonal connections, offer avenues for skill improvement, and acknowledge employee contributions typically yield heightened motivation levels (Hackman & Oldham, 1980; Eisenberger et al., 1997). These findings extend beyond geographical borders, illustrating the universal influence of a favourable work environment on employee motivation.

In Africa, the impact of a conducive work environment on motivation aligns with global trends. In sub-Saharan African nations such as Nigeria and South Africa, researchers emphasise the significance of inclusive and respectful work cultures in motivating workers (Oyeyemi & Adeoye, 2018; Meyer et al., 2018). Furthermore, factors such as job security and fair treatment carry substantial weight in motivating employees in this region (Buitendach & De Witte, 2005; Bagraim & Saks, 2014). The collective cultural norms prevalent in many African countries underscore the role of teamwork and supportive interactions in enhancing motivation (Gyensare et al., 2020).

In the specific case of Ghana, the impact of a conducive work environment on motivation aligns with broader African and global patterns. Studies conducted within the Ghanaian context highlight the importance of leadership strategies that prioritise employee well-being and personal growth (Aryee et al., 2007; Amponsah-Tawiah & Mensah, 2015). Factors such as fair reward systems, transparent communication, and opportunities for skill enhancement emerge as pivotal motivators in Ghana's workplaces (Adu-Gyamfi et al., 2019). The communal values ingrained in Ghanaian society further underscore the significance of positive relationships and collaborative efforts in driving motivation (Gyensare et al., 2020).

2.4 Conceptual Framework

A conceptual framework was adopted to visually illustrate the relationship between two primary variables: the independent and dependent variables. In this study, the dependent variable is employee productivity, an indicator of the level of output or work outcomes achieved by employees. On the other hand, the independent variable is employee motivation, which encompasses the internal drive and desire that influence employees' willingness to exert effort and perform their tasks effectively. The conceptual framework highlights the significant role of employee motivation in shaping employee productivity. When employees are motivated, they exhibit higher levels of engagement, focus, and commitment to their work, ultimately increasing productivity.

However, it is important to recognise that employee motivation is influenced by various factors, which are represented as independent variables within the framework. One such influential factor is employee welfare. Employees are more likely to be motivated and involved in their work when they are well, have stable finances, and are happy in their positions. Performance and productivity may rise as a result. Employee relationships also play a crucial role in motivating employees. Establishing positive relationships with supervisors, colleagues, and other members of the organisation fosters a supportive and collaborative work environment, which in turn enhances employees' sense of belonging and motivation. The leadership style employed within the organisation is another factor that significantly affects employee motivation. Effective and transformative leadership, characterised by inspiration and empowerment, has been associated with higher levels of motivation and increased employee productivity.

Furthermore, training and development opportunities contribute to employee motivation. When employees have access to continuous learning initiatives and opportunities for skill development, they perceive themselves as valued and invested by the organisation, leading to heightened motivation and improved performance. Lastly, a conducive working environment, encompassing a comfortable physical workspace, appropriate resources, and a healthy organisational culture, significantly impacts employee motivation. When employees feel supported and provided with the necessary resources to carry out their tasks effectively, their motivation is more likely to be elevated, resulting in enhanced productivity. Figure 2.1 presents the conceptual framework.

Independent Variable

Dependent Variable

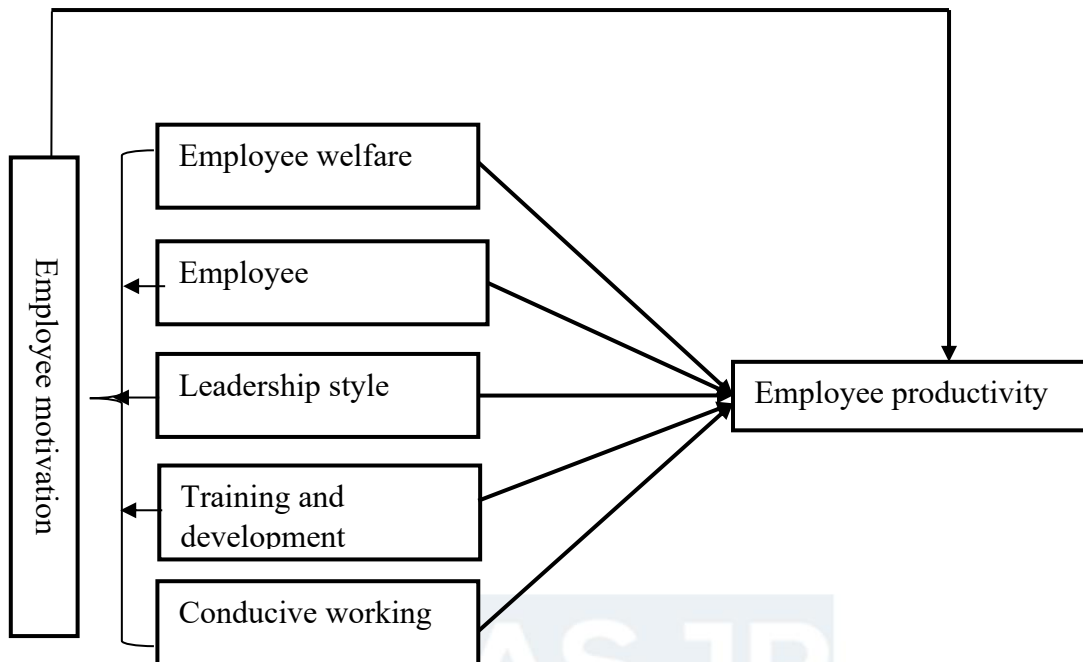


Figure 2.1 Conceptual framework
Source: Author's construct (2023)

2.4.1 Hypothesis development

2.4.1.1 Employee motivation and employee productivity

Employees are widely recognised as the most valuable assets within an organisation. Their motivation level plays a crucial role in driving the productivity and overall performance of the organisation. Sheetz (2020) emphasises the positive relationship between employee motivation and productivity, stating that motivated employees tend to be more productive compared to those who lack motivation. This sentiment is supported by Zaidee et al. (2015), who consider employee motivation as a reliable predictor of productivity. Chaudhary & Sharma (2012) conducted a study that further confirmed the positive impact of employee motivation on productivity. Evidently, employee motivation leads to higher employee satisfaction, which in turn enhances their commitment to greater productivity.

Ali & Ahmed (2009) highlight the importance of employee motivation in boosting morale and fostering employees' active contribution to organisational objectives. Additionally, motivated employees tend to be more successful as they consistently strive to achieve job-related outcomes. This satisfaction and dedication ultimately contribute to productivity as employees enjoy their work and fully invest their efforts in the organisation (Kreisman, 2002). Addressing motivational challenges and ensuring employee satisfaction are essential to increasing productivity and promoting employee well-being (Bogdanova & Naunivska, 2008). Azin & Reihane (2013) assert that employee motivation is a significant policy that organisations can adopt to enhance task effectiveness.

The level of employees' positive contributions to task outcomes largely depends on their motivation. A high level of motivation is expected to have a considerable positive impact on productivity (Grant, 2011). Employees with the necessary motivational factors tend to exhibit high job satisfaction, whereas low motivation levels can hinder productivity. Employee motivation not only stimulates creativity but also encourages employee initiative, both of which are critical for achieving high-quality output (Grant, 2011). Based on the foregoing, the researcher hypothesises as follows:

H1: Employee motivation has a significant effect on employee productivity

2.5.1.2 Motivational factors and employee productivity

The potency of various motivational elements in shaping employee productivity is undeniable, and a comprehensive analysis of these factors can be conducted through the lenses of Abraham Maslow's Hierarchy of Needs and Frederick Herzberg's Two-Factor Theory. These influential frameworks offer invaluable insights into how motivational factors such as employee welfare, employee relationship, leadership style, training and development initiatives, and a conducive work environment contribute meaningfully to productivity.

a. Employee welfare

Research has shown a close relationship between employee productivity and welfare (Dufus & Chelladurai, 2018). Prioritising employee welfare positively affects motivation and engagement, which in turn lead to increased performance and productivity (Society for Human Resource Management, 2019; Oswald, Proto, & Sgroi, 2012). Employee productivity is affected by employee welfare through several interrelated channels. For example, when workers are in good physical and mental health, they can focus better on their work and are less likely to miss work due to illness, which increases productivity (Dufus & Chelladurai, 2018). Additionally, workers who have financial security and strike a good work-life balance are typically less anxious and overwhelmed, which also boosts productivity (Oswald, Proto, & Sgroi, 2012).

It is clear in many workplaces that employee welfare and productivity are positively correlated, emphasising the importance of companies offering assistance and resources to meet the various demands of their workers. Organisations that prioritise the physical, emotional, and financial well-being of their workforce foster an environment in which individuals are more likely to devote their time and effort, which in turn results in increased performance and productivity. Based on the foregoing, the researcher hypothesises as follows:

H2: Employee welfare has a significant effect on employee productivity

b. Employee relationship

Both Maslow's and Herzberg's frameworks underscore the crucial importance of fostering positive relationships among employees. Within Maslow's construct, the social and esteem needs highlight the innate human inclination for camaraderie and optimistic interactions within the work domain (Maslow, 1943). Herzberg's theory aligns with this sentiment by asserting that strong interpersonal relationships are potent motivators, substantially bolstering overall job satisfaction (Herzberg et al., 1959). A consistent pattern emerges in empirical research, showing that cultivating supportive relationships and fostering a positive workplace atmosphere effectively heighten employee engagement, thereby contributing to elevated productivity (Eisenberger et al., 2001). Based on the foregoing, the researcher hypothesises as follows:

H3: Employee relationships have a significant effect on employee productivity

c. Leadership style

The intricacies of leadership methodologies substantially shape employee motivation, a concept that aligns seamlessly with the tenets of both Maslow and Herzberg. Maslow emphasises the importance of addressing self-esteem and self-actualisation needs through transformative leadership approaches (Maslow, 1943). Herzberg's theory aligns with this notion, indicating that effective leadership can catalyse motivation by providing pathways for achievement and personal growth (Herzberg et al., 1959). Empirical research supports this view, showing that transformational leadership practices are directly associated with heightened employee motivation and improved performance outcomes (Bass & Riggio, 2006). Based on the foregoing, the researcher hypothesises as follows:

H4: Leadership style has a significant effect on employee productivity.

d. Training and development

The realm of training and development seamlessly dovetails with Maslow's notion of self-actualisation, which emphasises the inherent human desire for individual growth and advancement (Maslow, 1943). Herzberg's theory further accentuates this perspective by highlighting that opportunities for training and development contribute to job enrichment and motivation (Herzberg et al., 1959). Empirical findings robustly substantiate this viewpoint, underscoring that organisations prioritising avenues for continuous learning tend to experience heightened employee motivation, ultimately culminating in enhanced overall performance (Tannenbaum et al., 1991). Based on the foregoing, the researcher hypothesises as follows:
H5: Training and development have a significant effect on employee productivity

e. *Conducive working environment*

The significance of a positive work environment resonates prominently within the frameworks of both Maslow and Herzberg. In Maslow's framework, the theory underscores the importance of fulfilling self-esteem needs in a workplace environment characterised by respect and empowerment (Maslow, 1943). Herzberg's theory accentuates the pivotal role of a conducive work environment, affirming its substantial contribution to job satisfaction and motivation (Herzberg et al., 1959). Studies corroborate that a supportive and nurturing work setting correlates strongly with heightened employee motivation, increased job satisfaction, and improved overall performance (Gyensare et al., 2020). Based on the foregoing, the researcher hypothesises as follows:

H6: A conducive working environment has a significant effect on employee productivity.

2.6 Chapter Summary

In Chapter Two, the literature review examines the relationship between employee motivation and productivity, specifically in the context of tertiary education, with a special focus on Ghana and a global perspective. The review examines the history of employee motivation theories, including Frederick Taylor's scientific management, Abraham Maslow's hierarchy of needs, Frederick Herzberg's two-factor theory, and recent developments in positive psychology. The discussion of employee productivity encompasses both quantitative and qualitative aspects, examining various dimensions of tertiary education.

The theoretical framework relies on Maslow's hierarchy of needs and Herzberg's two-factor theory to analyse human motivation in organisational settings, emphasising physiological, safety, social, esteem, and self-actualisation needs. The empirical review examines factors influencing employee motivation, including welfare, relationships, and leadership styles, and highlights their impact on organisational productivity and well-being. The summary underscores the importance of understanding these factors in the African context, particularly in Ghana, and emphasises the study's comprehensive conceptual framework and hypotheses.

3.0 METHODOLOGY

3.1 Introduction

In this chapter, the researcher provides a detailed overview of the composition of all that is constituted in the research methodology that guides the study titled "Analysing the impact of employee motivation on the productivity of tertiary education workers: A case study of Takoradi Technical University (TTU)." This composition encompasses the research design, research strategy, data sources, data collection methods, techniques for selecting participants, data analysis, rigour, ethical considerations, and limitations encountered during the study. The discussion begins with the research design, which lays the foundation for the study. Then, the chapter explores the research strategy, methods for collecting data, and techniques for selecting participants that influence the study. This examination includes details about the study's population and data sources, such as primary surveys and reviews of existing literature. The chapter also provides a thorough explanation of how the data is collected, focusing on transparency and reliability.

Next, the chapter moves to the data analysis phase, where statistical methods like descriptive statistics and regression analysis are used to reveal underlying patterns. The commitment to methodological rigour is emphasised through an assessment of the study's reliability and validity. Throughout, ethical considerations remain a central focus. Finally, the

chapter concludes by acknowledging the study's inherent limitations. This comprehensive exploration underscores the credibility of the investigation into how employee motivation and productivity interact within the unique context of TTU.

3.2 Research Design

The study builds on two fundamental research designs: descriptive and explanatory. For the descriptive design, in the initial stage of the study, the researcher intends to create a comprehensive profile of the workforce at Takoradi Technical University. This involves gathering detailed data on employee demographics, motivation factors, and current productivity levels. The goal is to paint a detailed picture of the university's employees, including their backgrounds, motivations, and current productivity. The descriptive design is chosen because it allows for a thorough understanding of the sample population (McCombes, 2019). By collecting detailed demographic data and understanding motivation factors, the researcher establishes a strong foundation for further analysis.

This phase helps to establish a baseline and identify patterns within the data. To achieve this, the researcher conducts a survey and collects data from a representative group of tertiary education workers at Takoradi Technical University. This survey is carefully designed to capture relevant information about employees' backgrounds, what motivates them, and how productive they perceive themselves to be. The collected data undergoes statistical analysis, yielding descriptive statistics such as means, frequencies, and distributions. Descriptive research is widely used to provide a comprehensive understanding of a subject or population (McCombes, 2019). For example, McCombes (2019) conducted descriptive research to understand the characteristics and preferences of participants in a healthcare study, which aligns with my goal of comprehensively describing tertiary education workers.

For the explanatory research design, the researcher moves beyond mere description to explore the causal factors underlying the relationship between employee motivation and productivity. The objective is to uncover the "why" by closely examining the motivational factors that impact productivity. The explanatory research design is chosen because it enables the researcher to discover the fundamental causal elements behind observed phenomena (McCombes, 2019). This design allows the researcher to understand why specific motivational factors have a particular impact on productivity. This deeper understanding is crucial for making informed recommendations and interventions.

To achieve this, the researcher uses regression analysis, a statistical technique commonly used in explanatory research (Hair et al., 2019). Regression analysis helps to establish and clarify the complex relationships between employee motivation factors and productivity levels. By analysing these relationships, the researcher can identify which motivational factors significantly influence productivity and to what extent. Explanatory research, often facilitated by regression analysis, is widely used to uncover causal relationships (Hair et al., 2019). For instance, Hair et al. (2019) used regression analysis to examine the causal relationships among factors influencing customer loyalty, demonstrating the approach's applicability to understanding causality.

3.3 Sampling Process and Sampling Technique

The researcher follows a comprehensive process to determine the sample size, as outlined in the following subheadings.

3.3.1 Target population

To begin, the researcher precisely defines the target population. The population comprises the entire workforce of Takoradi Technical University, including both teaching and non-teaching staff. As indicated by data from the Human Resource Office (2023), the total number of staff members is 1,239, comprising Senior Members - 497, Senior Staff - 235, Junior Staff - 156, and Academic Staff- 351. However, for feasibility and practicability, the researcher opts to narrow it to the university's non-teaching staff (target population) (Kothari, 2019). The researcher targets the non-teaching staff members because they are the only accessible population at the time of the research. This brings the target population to 888.

3.3.2 Sample frame

After defining the population, the researcher considers the sample frame, which comprises the list of all 888 non-teaching staff at the university.

3.3.3 Stratification

The next stage involves recognising distinct categories or groups, known as strata, within the sample frame (Kothari, 2019). In this study, three strata are identified: Senior Members, Senior Staff, and Junior Staff. Each of these strata represents a specific segment within the non-teaching staff population.

3.3.4 Sampling unit

The researcher then determines how many individuals should be selected from each stratum for the final sample. Using purposive sampling, the researcher considers the Senior Members of the university's non-teaching staff (Creswell, 2014). This constitutes the sampling unit comprising 497 members. Purposive sampling is used to select Senior Members for the study because they are readily accessible and can provide valuable insights. This allocation is based on factors such as the size of each stratum within the sample frame and the research objectives.

3.3.5 Sample size determination

Within the Senior Members stratum, a random selection process is employed to choose specific individuals for the sample. Since the stratum is large in number, the researcher applies the Slovin formula ($n = 1 + Ne^2/N$) to estimate a sample size of 221 (Slovin, 1960). To ensure every senior member has an equal chance of being selected, the researcher assigns a unique identifier to the total sample of 497 and selects 221 at random.

3.4 Sources of Data

In this study, the researcher gathers data using two main methods: primary and secondary. The primary data sources in this study are first-hand information collected by the researcher through structured questionnaires administered to selected personnel at Takoradi Technical University. On the other hand, secondary sources refer to pre-existing data not originally gathered for this research but used to support and enhance the study. These secondary data sources include existing research studies and relevant databases. They provide additional context and data to support the research, contributing to sections such as the literature review, background information, and discussions throughout the study (Agyemang & Osei-Tutu, 2017).

3.5 Data Collection

This section presents a discussion on the method, instrument and procedure for data collection.

3.5.1 Data collection method

In the context of the study, the researcher intends to apply a systematic and objective approach, specifically quantitative research, to investigate the subject matter. This method involves the systematic collection and analysis of numerical data, using instruments such as surveys to gather well-structured data for subsequent statistical examination. Quantitative research is widely recognised for its objectivity, ensuring that data collection minimises researcher bias and aims for the highest level of impartiality (Williams, 2021). The researcher adopts a deductive research approach to guide the collection and analysis of quantitative data. The researcher starts with a clearly defined hypothesis, derived from existing theories and literature. These theories are established through a thorough examination of existing literature and real-world observations in the research field.

Subsequently, the researcher designs data collection tools, specifically structured surveys, to gather relevant data directly related to the hypotheses. This meticulous data collection process sets the stage for robust statistical analyses, such as regression. These analyses are systematically employed to investigate relationships among variables, enabling the derivation of meaningful, well-supported conclusions (Creswell & Creswell, 2017).

3.5.2 Data collection instrument

The researcher begins the data collection process by identifying the research questions. In this study, the researcher seeks to understand how employee motivation relates to productivity among tertiary education workers at Takoradi Technical University. The questions delve into what motivates employees and how motivation impacts their productivity.

Next, the researcher selects appropriate methods for gathering data. The researcher opts for a survey data collection method. With data collection methods in place, the researcher develops a well-structured questionnaire as the primary data collection instrument. This questionnaire is divided into two sections: one focusing on participant demographics and the other consisting of specific inquiries aligned with the research objectives. The demographic segment aims to gather information regarding age, gender, education, and work experience, providing a comprehensive profile of the participants. This demographic data is used to segment and analyse responses by various participant characteristics.

The questions related to the research objectives are designed in a closed-ended format, simplifying the quantitative analysis of responses. In total, the questionnaire comprises 25 questions, including demographic inquiries. These research-oriented questions seek insights into several dimensions: Respondents are asked to express their level of agreement or disagreement with statements concerning factors influencing employee motivation at Takoradi Technical University. The researcher also systematically evaluates employee productivity, considering factors such as task completion, output quality, and operational effectiveness. Furthermore, the researcher seeks to gauge how various motivational factors affect employee productivity. Participants are prompted to share their perspectives on the obstacles that impede employee motivation and productivity at the university.

The Likert scale used in the questionnaire ranges from "Strongly Disagree" to "Strongly Agree," providing respondents with a structured means to communicate their degrees of agreement or disagreement with each statement. This scale offers a systematic framework for measuring attitudes and viewpoints regarding motivation and productivity. The use of closed-ended questions and the Likert scale streamlines data analysis, facilitating the quantification of responses and enabling the extraction of meaningful insights from survey results.

1. *Survey Response Rate*

To collect empirical data, the researcher distributed 221 questionnaires to prospective participants in accordance with the study's methodological framework. These questionnaires were thoughtfully designed to elicit quantitative data that are crucial to achieving the study's goals. Nevertheless, the researcher reported receiving 170 completed questionnaires at the end of the data gathering session. This data point represents a response rate of 77%. This response rate is significant because it reflects the study participants' support and involvement in the research objectives (Johnson & Christensen, 2017).

3.5.3 *Data collection procedure*

After designing the questionnaire, the researcher secures an introductory letter from the Ghana Institute of Management and Public Administration, Business School, and obtains permission to collect data from the selected institution, Takoradi Technical University. Once the researcher gains approval, they begin to create an electronic questionnaire. The researcher ensures that the research questions are clearly articulated and formatted appropriately. Special attention is paid to ensuring that the questions remain clear, concise, and impartial throughout the design process. To begin participant engagement, the researcher introduces a welcoming message or an initial section at the outset of the survey. In this section, the researcher conveys the survey's purpose, assures respondents of the confidentiality and anonymity of their responses, and provides any essential instructions for completing the survey.

Upon finalising the Google Survey Form, the researcher initiates the distribution phase, where the link is sent to the participants. As participants begin submitting their surveys, the researcher uses real-time monitoring to track incoming responses. For participants who did not respond within the stipulated timeframe, the researcher initiates the reminder phase. Polite, encouraging reminder emails are sent via email client tools to prompt timely survey completion.

Subsequently, after the designated three-week data collection period, the researcher accesses the collected survey responses. These responses are downloaded in a format compatible with the planned data analysis, such as Excel. With the data in hand, the researcher commences the data analysis phase using a quantitative approach. In terms of data security and privacy, the researcher ensures that the collected data is stored securely and complies with relevant data protection regulations. Finally, as a gesture of appreciation, the researcher expresses gratitude to the survey participants for their valuable time and input.

3.6 Data Analysis Technique

In the study, the primary data analysis revolves around two fundamental methods: descriptive statistics and regression analysis. These analytical approaches serve specific research objectives and enhance the clarity of data presentation. Descriptive statistics is used to summarise and present data clearly. The goal is to provide an overview of key aspects of employee motivation, productivity, and related variables. Descriptive statistics is used to understand central trends, variations, and patterns within the data. This is crucial for creating a snapshot of the study's participants and their levels of motivation and productivity, making the data more understandable for decision-making.

Various descriptive statistics, such as means (averages), standard deviations (variations), frequency distributions (patterns of responses), and percentages (proportions), are computed from survey data. Statistical software like SPSS is used for these calculations. Descriptive statistics are widely used in organisational psychology and management research to present and summarise data on employee motivation and productivity. For instance, Smith et al. (2018) use means and standard deviations to describe employee motivation levels in their study on workplace satisfaction.

Again, the study employs regression analysis to examine the relationships among multiple variables. The objective is to understand how changes in employee motivation (the independent variable) relate to changes in employee productivity (the dependent variable). The use of regression analysis to investigate the cause-and-effect relationship between employee motivation and productivity. This analytical method helps us determine whether variations in motivation levels significantly affect productivity and quantify the extent to which motivation explains productivity changes. The regression analysis is conducted using statistical software like SPSS. Specifically, multiple regression, a statistical method, is used to simultaneously examine the relationship between a dependent variable and multiple independent variables. This is adopted to measure the general objective and objective 3 (Hayes, 2023).

In the context of assessing the influence of several factors, such as employee welfare, employee relationships, leadership style, training and development, and a conducive working environment on employee productivity (the dependent variable), multiple regression aids in discerning the individual contributions of these factors to variations in employee productivity while holding other variables constant (Oyewobi & Adeniji, 2021). The model $Y = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \epsilon$ is adopted.

Objective 3: To examine how the various factors of motivation influence employee productivity at the TTU.

$$\text{Employee Productivity (Y)} = \beta_0 + \beta_1 (\text{Employee welfare}) + \beta_2 (\text{Employee Relationship}) + \beta_3 (\text{Leadership Style}) + \beta_4 (\text{Training and Development}) + \beta_5 (\text{Conducive Working Environment}) + \epsilon \dots \dots \dots 1$$

General objective: To examine the effect of employee motivation on employee productivity among tertiary education workers; a case study of the TTU.

$$\text{Employee Productivity (Y)} = \beta_0 + \beta_1 (\text{Employee Motivation}) + \epsilon \dots \dots \dots 2$$

Here:

- Y represents employee productivity.
- β_0 stands for the intercept.
- $\beta_1 \dots \beta_n$ denote the coefficients for each independent variable.
- $X_1 \dots X_n$ correspond to the values of the independent variables.
- ϵ symbolises the error term.

Statistical software (specifically, SPSS) is then used to calculate the coefficients ($\beta_1 \dots \beta_n$) from the collected data. These coefficients reveal both the strength and direction of the relationships between each independent variable and employee productivity, with positive

coefficients indicating a positive relationship and negative coefficients indicating a negative relationship (Oyewobi & Adeniji, 2021). The statistical significance of each coefficient is assessed using F-tests. A significant coefficient implies that the respective independent variable has a statistically significant impact on employee productivity (Oyewobi & Adeniji, 2021).

3.7 Rigour (Reliability and Validity Analysis)

The researcher prioritises ensuring the study's integrity and credibility by rigorously evaluating three fundamental principles: generalizability, reliability, and validity. These principles are central to the commitment to maintaining the quality and trustworthiness of our research. Although traditional generalizability does not apply in the qualitative context of this study, theoretical generalizability serves as a pertinent alternative. The research draws on well-established motivational theories and factors influencing motivation, enabling a broader, more comprehensive understanding of employee motivation and productivity and aligning seamlessly with our research objectives (Schwandt, 2015). Again, the researcher ensures generalizability through several steps.

The study uses systematic and fair random sampling, including stratification to represent various groups within the university. It focuses on having a large enough sample to avoid drawing conclusions about a small, unrepresentative group. The researcher clearly defines who qualifies as "tertiary education workers." Also, the research findings are compared to existing research, showing they apply beyond the specific case. In the study report, the researcher openly discusses limitations, outlines practical implications, and offers recommendations, making it clear that the findings apply to a wider audience (O'Cathain et al., 2008). To assess the internal consistency of the questionnaire items related to motivation and productivity, the researcher conducts statistical analyses, including Cronbach's alpha. This widely recognised measure of internal consistency helps us gauge the coherence among questionnaire items within each construct, thereby confirming their reliability (Mohajan, 2017).

To establish content validity, the researcher conducts a thorough review to ensure that questionnaire items and research methods comprehensively encompass all pertinent aspects of employee motivation and productivity within the scope of our study. The researcher seeks expert judgment and conducts an extensive literature review to verify that the questionnaire aligns with the constructs under investigation (Mohajan, 2017).

Table 3.1 Reliability test

LN	Construct	Sub-construct	Items	Cronbach Alpha	Cat. mean	SD
1	Employee Motivation	Employee welfare	10	0.89	3.21	1.09
		Employee relationship	7	0.84	3.89	0.80
		Leadership style	5	0.85	3.71	0.89
		Training and development	5	0.85	3.60	0.88
		Conducive working environment	5	0.87	3.55	0.94
2	Employee Productivity Total		15	0.88	4.11	0.70
			47	0.96	3.68	0.88

Source: Field data (2023)

Table 3.1 presents two constructs: employee productivity and motivation, with employee motivation having five sub-constructs along with the relevant items, category means, standard deviations (SD), and Cronbach's alpha reliability coefficients. The construct of employee motivation comprises several sub-constructs, such as training and development, employee welfare, employee relationships, leadership style, and a conducive working environment. With

strong internal consistency, as indicated by Cronbach's alpha values, each sub-construct comprises a group of components. The category means provide an overview of the average scores for each sub-construct. Interestingly, Employee Relationship had the highest mean score (3.89), indicating that workers have a favourable opinion of the calibre of their interactions with peers, managers, and co-workers. The average scores for training and development, employee welfare, leadership style, and conducive working environment range from 3.21 to 3.71, which is likewise a reasonably positive grade. The standard deviations indicate the extent to which each sub-construct varies.

With a Cronbach's alpha of 0.88, this construct, which consists of 15 items, exhibits strong internal consistency. Employee productivity has a category mean of 4.11, indicating that employees generally rate their productivity highly. Employee productivity has a standard deviation of 0.70, indicating that productivity rates are less variable. All the sub-constructs that make up motivation, together with the employee productivity construct, are combined to form the entire construct. With a high Cronbach's alpha of 0.96, it has 47 items and strong internal consistency. In the context of the study, the category mean for the overall construct is 3.68, indicating an overall good impression of many aspects of employee motivation and productivity. The overall construct's standard deviation is 0.88, indicating moderate variability across all responses.

3.8 Ethical Considerations

First, the researcher secures ethical clearance from the Ghana Institute of Management and Public Administration's ethics committee to conduct research at the selected institution, Takoradi Technical University. Also, ensuring participants' confidentiality is a top priority for the researcher. To safeguard their privacy, the researcher avoids recording participant names, ensuring that their responses remain anonymous. Additionally, all survey data collected is securely stored on password-protected devices, with only the researcher having access.

Second, the researcher strictly follows the principle of informed consent. Participants are provided with comprehensive information about the research objectives, methods, potential risks, and benefits. Each participant willingly gives informed consent, indicating their willingness to participate without any pressure. Importantly, participants are assured that their decision to participate or withdraw will not affect their status at Takoradi Technical University or its affiliated entities.

Furthermore, acknowledging the importance of reflexivity in addressing potential researcher biases, the researcher actively engages in continuous self-reflection. This involves an ongoing effort to identify and rectify any preconceived ideas or biases that could influence the fairness of data collection, analysis, or interpretation. This commitment to ongoing reflection is essential for enhancing the credibility and impartiality of the research, particularly considering the researcher's role as a staff member at the university.

3.9 Limitations of the Study

In this study, we encounter notable limitations. Firstly, there is limited ability to engage with academic staff. During the research phase, academic staff at Takoradi Technical University are on recess, which significantly curtails the capacity to access information from this group directly. As a result, the study primarily focuses on non-academic staff members. This could potentially introduce bias into our data and limit our comprehensive exploration of the subject matter. Another limitation concerns the sample size. Despite purposive sampling to select participants with specific expertise, the sample size remains relatively modest, primarily due to limited access to academic staff. Consequently, the conclusions drawn from this study may not be entirely transferable to the entire spectrum of tertiary education employees or other institutions beyond Takoradi Technical University.

The research adopts a cross-sectional research design, capturing data at a single time point. This method inherently confines the ability to establish causal relationships or monitor changes over time. Employee motivation and productivity may vary across distinct phases of the academic calendar, a facet not comprehensively accounted for in our study. Longitudinal studies that track participants over extended periods could offer deeper insights into the evolving interplay between these variables.

The researcher relies heavily on self-report data collected via surveys. Self-reported data can be susceptible to social desirability bias, where respondents may respond in ways they perceive as socially acceptable rather than conveying their genuine sentiments. Despite efforts to mitigate this bias, participants may still provide idealised or distorted responses. Lastly, the research outcomes are context-specific to Takoradi Technical University and may not be immediately transferable to other tertiary educational institutions characterised by distinct organisational structures, cultures, or workforce compositions.

3.10 Conclusion

This study uses a deductive approach and quantitative methods, with a focus on surveys and statistical analysis, to achieve its research goals of describing and explaining phenomena. It specifically examines senior non-academic staff members at Takoradi Technical University, carefully selected through purposive sampling. Data collection involves structured questionnaires that include a Likert scale. The data undergo thorough analysis, which includes descriptive statistics and regression analysis conducted using SPSS, with a strong commitment to ensuring the data's reliability, validity, and ethical standards. However, It is crucial to acknowledge certain limitations, such as limited access to academic staff, a relatively small sample size, the use of a one-time snapshot approach, reliance on self-reported data, and findings that may primarily apply to the specific context of Takoradi Technical University. These limitations should be taken into account when interpreting and applying the research findings to broader contexts.

4.0 RESULTS AND DISCUSSIONS

4.1 Introduction

The study aimed to examine the effect of employee motivation on employee productivity among tertiary education workers; a case study of Takoradi Technical University. This chapter plays a central role in comprehensively presenting and interpreting the research findings and drawing implications. Also, the chapter provides a thorough discussion of the variables in context of relevant literature. The chapter consists of the following; demographic details of respondents, analysis of the specific objectives, as well as, the research aim using descriptive statistics and regression analysis, and discussion of findings.

4.2 Demographic Details of Respondents

Understanding the dynamics of employee motivation and productivity in tertiary education institutions requires consideration of demographics. Age, gender, education, and work experience were the demographic variables that were crucial to the study's investigation. These demographic factors play a critical role in illuminating the heterogeneous nature of the university workforce and providing insights into potential differences in productivity and motivation across employee groups. While gender may draw attention to potential differences in motivation and productivity, age might affect attitudes and preferences related to the workplace. Work experience frequently indicates the collection of knowledge and skills, and education degrees can have an impact on skill sets and career objectives. As a result, studying these demographic variables is essential to understanding the complex relationship between worker productivity and motivation in Takoradi Technical University's unique environment. Table 4.1 presents the demographic details of respondents.

Table 4.1 Demographic details of respondents

LN	Variable	Indicators	Frequency	Percentage
1	Age	18-24	9	5%
		25-34	87	51%
		35-44	55	32%

		45-54	18	11%
		55-64	1	1%
				0%
2	Gender	Female	63	37%
		Male	107	63%
				0%
3	Education	Bachelor's Degree	38	22%
		Doctorate	10	6%
		High School	2	1%
		HND	2	1%
		Master's Degree	117	69%
		Professional Qualification	1	1%
				0%
4	Experience	11-15 years	31	18%
		1-2 years	32	19%
		16-20 years	5	3%
		3-5 years	50	29%
		6-10 years	42	25%
		Less than 1 year	5	3%
		Over 20 years	5	3%

Source: Field data (2023)

Table 4.1 presents the demographic details of respondents. The data show a balanced age distribution, with 51% of respondents in the 25–34 age range and 32% in the 35–44 age range. The workforce at Takoradi Technical University is well-represented across a variety of age groups, which is significant for understanding how different age cohorts view and interact with employee engagement and productivity programmes. Notably, the survey appears to be focused on younger to middle-aged employees, as evidenced by the lack of participants in the over-65 age group.

With 63% of respondents identifying as male and 37% as female, the gender distribution indicates a male majority. Given the study's implications, this gender imbalance warrants consideration. It raises the question of whether there are any gender-specific concerns or preferences in this area, and whether gender may influence how employee motivation and productivity are perceived. In terms of education, a significant portion of participants (69%) hold a Master's Degree, suggesting that the workforce is well-educated. This degree of educational diversity has consequences for understanding how employees' academic backgrounds may affect their motivation and productivity.

There is a wide range in experience levels; the largest group (29%) has three to five years of experience, followed by those with six to ten years (25%) and one to two years (19%). This broad experience pool enables investigation into how different career lengths may relate to worker motivation and productivity. The existence of persons with more than two decades of experience suggests the possibility of gaining an understanding of the enduring impacts of motivation on efficiency.

4.3 Objective 1: Factors affecting employee motivation at the TTU

Descriptive statistics were used to investigate the factors affecting employee motivation at the TTU. These factors include employee welfare, employee relationships, leadership style, training and development, and a conducive working environment. The researcher used mean and standard deviation to describe the variables. The following tables (4.2 to 4.6) present the descriptive statistics of variables

Table 4.2 Descriptive statistics of employee welfare

Code	Statement	N	Mean	SD
EW01	I am content with my salary.	17 0	2.78	1.2 0
EW02	The benefits provided are equitable.	17 0	2.82	1.0 8
EW03	Compensation accurately reflects my skills and contributions.	17 0	2.88	1.1 2
EW04	Bonuses and incentives serve as strong motivators.	17 0	4.01	1.2 0
EW05	I feel fairly rewarded for my hard work.	17 0	3.10	1.1 1
EW06	My institution fosters an inclusive environment where all workers feel valued and respected.	17 0	3.26	1.1 1
EW07	The various extracurricular activities at this institution improve the overall worker experience.	17 0	3.35	0.9 8
EW08	My institution effectively handles welfare issues, such as mental health, finances, and housing.	17 0	2.89	1.1 6
EW09	Workers from different backgrounds have equal chances to participate in extracurricular activities and clubs.	17 0	3.51	0.9 5
EW10	My institution's policies promote a sense of belonging and inclusion among its workers.	17 0	3.52	1.0 2

Source: Field data (2023)

The data in Table 4.2 shows that employees, in general, are moderately satisfied with their workplace conditions, with an average score of 3.19, slightly above the midpoint of the satisfaction scale (3.00). This indicates an overall positive sentiment among employees, although there's room for improvement, given the varying satisfaction levels for specific aspects. Employees seem most pleased with the University's extracurricular activities and inclusiveness policies, but less satisfied with the fairness of benefits and pay in relation to their contributions and skills. The wide range of standard deviations (SDs), which go from 0.95 to 1.20 with an average of 1.11, highlights the diversity of employee opinions, emphasizing the importance of addressing areas of lower satisfaction to enhance overall employee well-being.

Table 4.3 Descriptive statistics of employee relationship

Code	Statement	N	Mean	SD
EMR01	I maintain positive relationships with my colleagues.	17 0	4.23	0.66
EMR02	The team collaborates efficiently.	17 0	3.89	0.75
EMR03	Communication with coworkers is transparent and open.	17 0	3.85	0.81
EMR04	I receive support from my colleagues.	17 0	3.85	0.92
EMR05	A sense of camaraderie pervades the workplace.	17 0	3.69	0.78
EMR06	I receive support from my supervisor or management.	17 0	3.85	0.91
EMR07	My HOD, Director, and Dean relate positively with me.	17 0	3.89	0.79

Source: Field data (2023)

Table 4.3 presents the descriptive statistics of employee relationships. The findings suggest that employees generally have positive relationships with both their colleagues and supervisors. The mean scores for all statements are above the midpoint of the scale (3.00), with

the highest mean score of 4.23 for maintaining positive relationships with colleagues, indicating a strong sense of camaraderie and support among co-workers. While there is some variation in scores, with standard deviations ranging from 0.66 to 0.92 and an average SD of 0.82, it is evident that most employees have positive experiences. The fact that the lowest mean score, 3.69, pertains to the sense of companionship in the workplace indicates that most employees still feel a sense of togetherness and unity with their colleagues.

Table 4.4 Descriptive statistics of Leadership style

Code	Statement	N	Mean	SD
LS01	Leadership within the organisation is effective.	17	3.67	0.90
		0		
LS02	My superiors set a leading example.	17	3.73	0.88
		0		
LS03	Leadership actively fosters employee growth.	17	3.66	0.92
		0		
LS04	I possess confidence in the leadership team.	17	3.73	0.89
		0		
LS05	Leadership effectively communicates goals.	17	3.74	0.89
		0		

Source: Field data (2023)

Table 4.4 presents the descriptive statistics of leadership style. The findings show that employees generally have a favourable perception of the leadership style in the organisation. The mean scores for all the statements are higher than the midpoint of the scale (3.00), and the highest mean score, 3.74 for "Leadership effectively communicates goals," indicates that employees see their leaders as good communicators regarding the organization's goals. While there is some diversity in the scores, with standard deviations ranging from 0.88 to 0.92 and an average SD of 0.90, it is clear that employees have slightly differing opinions on these statements. The lowest mean score, 3.66 for "Leadership actively fosters employee growth," suggests that not all employees feel equally strong about leadership's commitment to their professional development, but it still sits above the midpoint, implying that most employees believe in their leaders' dedication to their career advancement.

Table 4.5 Descriptive statistics of training and development

Code	Statement	N	Mean	SD
T&D01	Training programs align with my job requirements.	17	3.67	0.88
		0		
T&D02	I receive adequate training to excel in my role.	17	3.38	0.94
		0		
T&D03	Training sessions are engaging and informative.	17	3.68	0.84
		0		
T&D04	Provided materials are user-friendly and comprehensible.	17	3.69	0.84
		0		
T&D05	There are opportunities for ongoing learning.	17	3.60	0.89
		0		

Source: Field data (2023)

Table 4.5 presents the descriptive statistics of training and development. The findings suggest that employees are generally content with the training and development opportunities provided by the organisation, with an overall mean score of 3.60, slightly above the mid-point of the scale (3.00). When considering specific aspects, employees are particularly satisfied with the ease of use and clarity of training materials (mean score 3.69) and the engaging and informative nature of training sessions (mean score 3.68). However, their satisfaction is lower regarding the adequacy of training to excel in their roles (mean score: 3.38). It is worth noting that there is some variation in the scores, as indicated by standard deviations ranging from 0.84 to 0.94 and an average SD of 0.87, suggesting differing opinions among employees regarding the quality of training and development opportunities.

Table 4.6 Descriptive statistics of conducive working environment

Code	Statement	N	Mean	SD
CWE01	The workplace cultivates a positive ambiance.	17 0	3.62	0.93
CWE02	Facilities and resources adequately support our tasks.	17 0	3.39	1.00
CWE03	Safety measures are in place and function effectively.	17 0	3.44	0.97
CWE04	Work arrangements offer flexibility.	17 0	3.66	0.84
CWE05	I feel at ease and driven while at work.	17 0	3.65	0.94

Source: Field data (2023)

Table 4.6 presents the descriptive statistics of conducive working environment. From the table, it is evident that employees generally feel content, with an overall average score of 3.54, slightly above the midpoint of the scale (3.00). Employees are most satisfied with the flexibility of their work arrangements (average score of 3.66) and the positive atmosphere in their workplace (average score of 3.62). However, they are less satisfied with the suitability of facilities and resources to support their work (average score of 3.39). It is important to note that there's a considerable range of opinions among employees about the quality of the working environment, as shown by standard deviations that vary from 0.84 to 1.00 and an average of 0.93, indicating a diversity of perspectives among the workforce.

4.4 Objective 2: Evaluation of the level of employee productivity

Descriptive statistics were used to evaluate employee productivity at TTU. The researcher used mean and standard deviation to describe this variable. Table 4.7 presents the descriptive statistics of employee productivity.

Table 4.7 Descriptive statistics of employee productivity

Code	Statement	N	Mean	SD
EMP01	I efficiently complete my tasks within the specified time frames.	17 0	4.04	0.7 9
EMP02	I reliably meet all of my assigned deadlines.	17 0	3.95	0.8 0
EMP03	I take an initiative to identify ways to enhance my work processes.	17 0	4.13	0.6 2
EMP04	I effectively manage my time throughout the workday.	17 0	4.05	0.6 2
EMP05	I remain attentive and concentrated on my assigned tasks.	17 0	4.03	0.7 3
EMP06	I utilize available resources and tools efficiently.	17 0	4.15	0.6 9
EMP07	I assume responsibility for my tasks and duties.	17 0	4.19	0.6 3
EMP08	I can adapt to changes in my workload effectively.	17 0	4.18	0.7 8
EMP09	I maintain a high level of organisation in my work.	17 0	4.24	0.6 0
EMP10	I communicate with my colleagues and superiors in a proficient manner.	17 0	4.23	0.5 9
EMP11	I actively solicit feedback to improve my performance.	17 0	4.01	0.7 6
EMP12	I seldom need to redo my work due to errors.	17 0	3.81	0.9 6

EMP13	I prioritise my tasks with effectiveness.	17	4.18	0.6
		0		0
EMP14	I am highly motivated to excel in my role.	17	4.21	0.6
		0		7
EMP15	I consistently contribute to my team's and organisation's success.	17	4.21	0.6
		0		2

Source: Field data (2023)

Table 4.7 presents the descriptive statistics of employee productivity. Employees generally believe they are quite productive, with an average rating of 4.10 on a 5-point scale. The highest-rated aspects show strong motivation and dedication to helping the organization succeed, while the lowest-rated part indicates a need to reduce errors. Employee responses vary moderately in the data. Specific observations reveal that employees are efficient, proactive, skilled at time management, resourceful, adaptable, organized, open to feedback, and highly motivated.

4.5 Objective 3: Assessment of how the motivation factors impact productivity

The third objective assessed the relationship between the motivation factors, including employee welfare (EW), employee relationships (ER), leadership style (LS), training and development (T&D), and their relationship with employee productivity. Regression analysis aided in the assessment. Table 4.8 presents the analysis.

Table 4.8 Regression analysis of the relationship between motivational factors and employee productivity

Regression Statistics	
Multiple R	0.50
R Square	0.25
Adjusted R-Square	0.21
Standard Error	5.91
Observations	170.00



ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	9.00	1,842.54	204.73	5.86	0.00
Residual	160.00	5,592.96	34.96		
Total	169.00	7,435.51			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	42.82	4.01	10.67	0.00	34.90	50.75
Age	- 0.36	0.91	0.40	0.69	- 2.16	1.43
Gender	0.84	1.01	0.83	0.41	- 1.15	2.83
Education	- 0.73	0.73	1.00	0.32	- 2.18	0.72
Experience	0.83	0.54	1.55	0.12	- 0.23	1.89
EW	0.14	0.09	1.52	0.13	- 0.04	0.32
EMR	0.64	0.17	3.84	0.00	0.31	0.97
LS	- 0.57	0.21	2.69	0.01	- 0.99	- 0.15

T&D	0.22	0.19	1.11	0.27	- 0.17	0.60
CWE	0.23	0.20	1.17	0.24	- 0.16	0.61

Source: Field data (2023)

Table 4.8 presents the regression analysis of relationship between motivational factors and employee productivity. Regarding the regression statistics, the R-squared value suggests that the independent variables included can account for 25% of the variability in productivity, while the Multiple R indicates a moderately positive correlation between these variables. Nonetheless, the marginally reduced adjusted R-squared indicates that not every independent variable makes a substantial contribution to the explanation of productivity. An accurate model is measured by the standard error, with a smaller value suggesting a better fit.

Again, the ANOVA demonstrates that the regression component of the model, which has nine degrees of freedom, is statistically significant in its ability to explain the variation in the dependent variable. The extremely low p-value of 0.00 and the F-statistic of 5.86 suggest a high correlation between the independent and dependent variables. This shows that the dependent variable is considerably impacted by at least one of the independent variables in the model.

In terms of the coefficients of the demographics, Age is determined to have a negative coefficient in this study, meaning that, while other factors remain constant, an increase in age of one unit causes a decrease of 0.36 units in the dependent variable. With a p-value of 0.69, age is not statistically significant in predicting the dependent variable, nevertheless. In contrast, gender has a positive coefficient that indicates a 0.84-unit increase in the dependent variable for a given gender; however, its p-value of 0.41 indicates that it is not statistically significant. With a p-value of 0.32, education shows a negative coefficient, meaning that a unit increase in education level results in a 0.73-unit drop in the dependent variable. However, this relationship is not statistically significant. Although experience is not statistically significant, as evidenced by the p-value of 0.12, it is related with a positive coefficient, demonstrating that every additional unit of experience corresponds to an increase of 0.83 units in the dependent variable.

Considering the coefficients of the main variables, Employee Welfare (EW) suggests a minor positive impact (0.14), implying that an increase in EW may result in a slight improvement in employee productivity. However, the relatively high p-value (0.13) raises questions about the statistical significance of this relationship, indicating possible inconsistency. In contrast, Employee Connections (EMR) reveals a robust and highly significant positive influence (0.64, p-value of 0.00), underscoring the pivotal role of nurturing employee connections in enhancing employee productivity. Leadership (LS) exhibits a notable negative impact (0.57, p-value of 0.01), signifying an adverse effect on employee productivity and underscoring the imperative for organizations to address issues related to detrimental leadership. Training and Development (T&D) and Working Environment (CWE) seem to have a positive effect, but because their p-values are not statistically significant (0.27 and 0.24, respectively), there is uncertainty about the reliability of their relationships. This suggests the need for more research to confirm their impact on employee productivity.

4.6 Research Aim: Examining the effect of employee motivation on employee productivity

The research aim was achieved through the use of a simple linear regression analysis. The variables involved are employee motivation (EMM, independent variable) and employee productivity (EMP, dependent variable). Table 4.9 presents the analysis.

Table 4.9 Regression analysis of the relationship between employee motivation and employee productivity

Regression Statistics	
Multiple R	0.37
R Square	0.14
Adjusted R-Square	0.13
Standard Error	6.17
Observations	170.00

ANOVA

	df	SS	MS	F	Significance F
Regression	1.00	1,041.38	1,041.38	27.36	0.00
Residual	168.00	6,394.13	38.06		
Total	169.00	7,435.51			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	47.16	2.80	16.86	0.00	41.64	52.68
EMM	0.13	0.02	5.23	0.00	0.08	0.17

Source: Field data (2023)

Table 4.9 presents the results of a regression analysis examining the relationship between employee motivation (EMM) and employee productivity. The results show a moderate positive connection between these two factors, with a correlation coefficient (multiple R) of 0.37. This means that there is a meaningful relationship between EMM and productivity. EMM accounts for 14% of the variation in productivity, as indicated by the R-squared value, and even after accounting for other variables, it still explains 13% of the variation (adjusted R-squared). The standard error is 6.17, indicating the typical difference between observed and predicted values. The ANOVA table confirms that the model is statistically significant, with a low p-value and a high F-statistic, implying that EMM significantly influences productivity. The intercept, representing productivity when EMM is zero, is 47.16. The EMM coefficient of 0.13 indicates a positive, statistically significant relationship between EMM and productivity.

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4.7 Discussion of Findings

4.7.1 Objective 1: Factors affecting employee motivation at the TTU

1. Employee welfare

The findings indicate that employees express moderate satisfaction with their workplace conditions. This aligns with existing literature on employee well-being, highlighting the significance of cultivating a positive work environment. It suggests that, on the whole, employees hold positive sentiments, particularly regarding aspects like extracurricular activities and inclusiveness policies. These findings are consistent with prior research that underscores the positive impact of employee welfare benefits, such as extracurricular activities, on job satisfaction (Adams et al., 2023). The average satisfaction score of 3.19 from Table 4.2 indicates that employees generally feel positive about their workplace conditions, aligning with the idea of employee well-being discussed by Dufus & Chelladurai (2018). However, the varying satisfaction levels and wide standard deviations highlight the need to recognise diverse employee perspectives and address areas where satisfaction is lower.

However, the finding also reveals lower levels of satisfaction regarding the fairness of benefits and compensation concerning employees' contributions and skills. This emphasises the importance of equitable benefits and fair pay, as advocated in the literature (Allen et al., 2022). Organisations must continuously evaluate and enhance these areas to maintain a positive work atmosphere and prevent grievances, as even minor adjustments to perks and compensation can significantly impact employee morale and productivity (Allen et al., 2022). Insights from the literature underscore the importance of adopting a holistic approach to employee welfare, encompassing social connections, job satisfaction, financial security, physical and mental health, and work-life balance (Dufus & Chelladurai, 2018; Heffernan, 2018; World Health Organisation, 2023). The research findings emphasise the need to address all these aspects when developing a comprehensive well-being policy. Furthermore, the theoretical model by Dufus &

Chelladurai (2018) identifies various inputs, such as the work environment, benefits, managerial support, and policies, that contribute to well-being outcomes, including job satisfaction, work-life balance, and employee development. The research sheds light on the effectiveness of specific inputs, such as extracurricular activities and inclusivity policies, in generating positive outcomes.

Existing literature suggests a direct connection between employee well-being, engagement, and retention (Ahmad & Rahman, 2018; Wright & Nishii, 2017). The research findings, especially the lower satisfaction with benefits and pay, provide valuable insights for enhancing employee engagement and retention strategies. The wide range of standard deviations (0.95 to 1.20) underscores the diversity of employee opinions, highlighting the need for personalised approaches to well-being initiatives that cater to individual needs and preferences. The strong consensus among employees on the statement “a sense of inclusion and belonging” echoes contemporary literature’s emphasis on fostering a welcoming, encouraging work environment (Deloitte, 2023). Engaged and productive employees who feel valued and involved are more likely to contribute to the organisation’s success, as highlighted by research from McKinsey & Company (2022).

2. *Employee relationships*

The positive scores reflecting employee relationships in Table 4.3, particularly the notably high score for maintaining positive relationships with colleagues (4.23), align with established literature emphasising the significance of employee relationships for motivation and job satisfaction (Eisenberger et al., 1986; Liden et al., 2015; Rhoades & Eisenberger, 2002). This positive assessment of employee interactions aligns with existing literature that underscores the value of creating a supportive work environment, encouraging cooperation and open communication. Previous research, such as Cox & Blake (1991), emphasises the benefits of fostering inclusivity and collaboration in the workplace, enhancing team dynamics and fostering a sense of belonging among employees.

Additionally, studies like those conducted by Grant & Parker (2009) highlight the substantial advantages of supportive relationships among co-workers and between employees and their supervisors in promoting higher employee engagement and job satisfaction. Insights from the existing literature underscore the pivotal role of positive relationships in fostering a motivational work environment, as proposed by Eisenberger et al. (1986) and further supported by subsequent research by Liden et al. (2015). The findings align with Dysvik & Kuvaas (2008)’s emphasis on effective communication and collaborative dynamics as essential components in building strong employee relationships. Additionally, the data suggest the existence of supportive supervisor-subordinate relationships, in accordance with Liden et al.’s (2015) research, which highlights the positive impact of such relationships on employee motivation.

The study’s insights extend to the African context, particularly in Ghana, where communal values play a crucial role in shaping employee relationships and motivation (Asiedu-Appiah & Kanjee, 2016; Nahapiet & Ghoshal, 1998). The research resonates with Mensah and Adjei’s (2016) exploration of the concept of “Ubuntu” in Ghana, emphasising its positive influence on fostering supportive relationships and, consequently, enhancing employee motivation. The presence of variation in scores (standard deviations ranging from 0.66 to 0.92) underscores the need to consider individual differences and preferences when devising strategies to improve employee relationships.

The organisation can leverage these positive perceptions to promote a sense of cohesion and collaboration among its employees, ultimately improving problem-solving abilities, job satisfaction, and cultivating a more dynamic and effective organisational culture. The variability in responses, particularly in statements with higher standard deviations, underscores the need for targeted interventions and improvements in specific areas. Addressing disparities in assessments of the level of support from colleagues and supervisors can lead to increased job satisfaction, a more harmonious work environment, and, ultimately, enhanced organisational effectiveness and employee well-being. These actions are consistent with contemporary research emphasising the importance of fair, consistent support networks in maximising both employee well-being and overall organisational success.

3. *Leadership style*



The finding that employees generally view the organisation's leadership style positively but hold differing opinions, particularly regarding leadership's commitment to employee growth, is highly relevant to both organisational behaviour and leadership studies. This nuanced insight sheds light on how leadership style influences employees' perceptions and motivation, and its potential effects on the organisation's success. The generally positive scores in Table 4.4 regarding leadership style are consistent with the established literature underscoring the critical role of leadership style in influencing employee motivation and job satisfaction (Goleman, 2019). The particularly high score for "Leadership effectively communicates goals" (3.74) indicates that employees perceive themselves as well-informed about the organisation's objectives and their own role in achieving them.

Existing literature affirms the significant impact of leadership style on employee motivation, supporting theoretical frameworks such as those proposed by Gagne & Deci (2005) and Luthans & Avolio (2003). The highest score in the research, highlighting effective communication of goals, aligns with the characteristics of transformational leadership, renowned for its ability to inspire and motivate employees (Bass & Riggio, 2006). However, the slightly lower score on "Leadership actively fosters employee growth" suggests that some employees may desire more support and professional development opportunities. Enhancing leadership practices through mentorship, coaching, and skill-building programs could address this aspect.

Considering the cultural context is crucial, especially in Africa, as research on leadership style in this region has emphasised (Tlale & Ferreira, 2013). Aligning leadership approaches with cultural values is vital, offering valuable insights for organisations operating in Ghana, where collectivism and the concept of "Ubuntu" significantly influence employee expectations and preferences. Research by Mensah & Adjei (2016) further emphasises the effectiveness of participative leadership in the Ghanaian context, aligning with the principles of "Ubuntu" and promoting employee motivation through collaboration and shared decision-making. The presence of variation in opinions, as indicated by standard deviations, is consistent with prior research highlighting the personalised nature of employees' perceptions of leadership. As proposed by Bass (1990), not all employees respond uniformly to transformational leadership behaviours. This variance in responses can be attributed to individual preferences and expectations, emphasising the importance of adaptive leadership, where leaders tailor their approaches to accommodate the diverse needs and aspirations of their team members.

The lower mean score for "Leadership actively fosters employee growth" raises a significant consideration. Within the framework of transformational leadership, nurturing employee growth is a fundamental element, as leaders are expected to invest in their employees' development and career advancement. The difference in scores for this specific aspect of leadership style suggests room for improvement. This finding underscores the need for leadership to take more proactive steps in demonstrating dedication to employee development, given its direct impact on employee motivation and engagement (Bass, 1990).

To effectively address this issue, the organisation can draw from the literature and implement various strategies. Firstly, the organisation should consider gathering specific feedback from employees through surveys or focus groups to understand better their perceptions of leadership's commitment to employee growth, aligning with best practices for understanding employee needs and expectations, as suggested by Eisenbeiss et al. (2018). Secondly, clearly defining "employee growth" and aligning it with the organisation's values and objectives, as recommended in the study, aligns with the literature's emphasis on setting precise expectations and objectives in transformational leadership, as advocated by Avolio & Gardner (2005). Additionally, creating a comprehensive employee development plan, providing regular feedback, and recognising employee achievements are endorsed by various leadership models and research, as they contribute to employee satisfaction, motivation, and engagement, in line with findings from Liden et al. (2016).

4. *Training and development*

According to the findings, employees generally have a positive perception of TTU's training and development program, indicating the organisation's commitment to providing effective training that equips staff for success in their roles. Participants also report that the training sessions are engaging and educationally enriching, underscoring a supportive learning environment. Additionally, the notion that training materials are clear and user-friendly is crucial

for effective training. The results in Table 4.5 reveal that employees generally find satisfaction with the organisation's training and development opportunities, with an overall mean score of 3.60, slightly above the midpoint of the scale. Some aspects, such as the user-friendliness and clarity of training materials (mean score 3.69) and the engaging nature of training sessions (mean score 3.68), receive higher satisfaction scores. However, there is less contentment with the adequacy of training to excel in their roles (mean score 3.38), indicating differing opinions among employees about the quality of these opportunities.

The literature stresses that training and development are systematic processes aimed at enhancing employees' understanding, skills, and overall performance within an organisation. Noe (2017) and Goldstein & Ford (2002) underscore the organised nature of this process, designed to align employees' abilities with organisational requirements, fostering career progression and cultivating a motivated workforce. Training imparts knowledge and skills relevant to job-related functions, while development aims to broaden aptitudes for enduring career advancement (Tannenbaum & Yukl, 1992; Kraiger et al., 1993). The literature also emphasises that training activities, such as workshops, mentorship, leadership initiatives, and exposure to diverse functions, equip employees to tackle evolving roles, reflecting the organisation's commitment to growth and enriching the work environment.

In the African context, particularly in Ghana, the significance of training programs in fostering motivation aligns with cultural values. Muathe & Munyoki's (2013) investigation reveals that training initiatives align with the collectivist ethos ingrained in African societies, thereby augmenting motivation through shared learning experiences. The importance of aligning training content and delivery methods with cultural values resonates with Eze's insights (2010), underscoring the imperative of cultural sensitivity for effective motivation enhancement.

In Ghana, Aryeetey & Ahlijah's (2014) exploration underscores the substantial impact of public-sector training programs on employee motivation. The study by Mensah and Larsen (2019) sheds light on the role of skill development initiatives in motivating workers across various Ghanaian industries. These insights align harmoniously with Ghana's cultural aspiration for growth and advancement, emphasising the role of training in actualising individual and collective ambitions. The findings from the current study, indicating varying opinions about training adequacy, underscore the importance of tailoring training initiatives to meet diverse employee needs and expectations, ensuring a more universally positive view of these opportunities.

These favourable views regarding training and development align with recent research emphasising the crucial role of training in employee motivation and skill development. Anderson et al. (2019) emphasise the importance of offering customised training programs that effectively engage employees and align with job requirements. Such programs can result in increased employee motivation and skill development. Furthermore, Noe's (2013) research underscores the significance of fostering a positive learning environment, as evidenced by participants' positive evaluations of training sessions as both engaging and instructive. Positive perceptions of resource usability also emphasise the value of easily accessible training materials, a point supported by recent research on training effectiveness (Saks & Belcourt, 2006).

The differences in how participants perceive the availability of continuous learning opportunities and the sufficiency of training are significant. The fact that not everyone views the organisation's provision of ongoing learning opportunities in the same positive light is reflected in the lower average scores for the statement "There are opportunities for continuous learning." The standard deviation values, especially the somewhat higher one for the statement "I receive adequate training to excel in my role," indicate a moderate level of diversity in responses, suggesting that some individuals may have varying opinions about whether the training they receive is sufficient. These variations in perceptions of ongoing learning and training adequacy highlight the importance of the organisation customising training programs to meet individual needs and roles, to achieve a more consistent and fairer view among participants. Addressing these variations can increase employee satisfaction and productivity while enhancing the effectiveness of the training and development strategy.

To address this variation in participant perceptions, the institution should consider tailoring training programs to individual needs and roles, aiming for a more consistent and equitable view among participants, especially concerning the adequacy of training. By focusing training and development efforts on areas where opinions are more divided, the organisation can enhance employee productivity and satisfaction. These results are consistent with recent studies

on the effectiveness of training and development initiatives, which underscore the importance of personalised, continuous learning opportunities (Tannenbaum & Yukl, 1992). This approach can result in a more adaptable and motivated workforce, ultimately contributing to the institution's overall success.

5. Conducive working environment

Table 4.6 summarises the descriptive statistics for the conducive working environment, indicating that employees generally feel satisfied with an overall average score of 3.54, slightly above the midpoint of the scale. High satisfaction is noted for the flexibility of work arrangements (average score of 3.66) and the positive workplace atmosphere (average score of 3.62). However, there is less satisfaction regarding the suitability of facilities and resources to support work (average score of 3.39), indicating diverse perspectives among the workforce. The findings indicate that employees generally view the working environment at Takoradi Technical University (TTU) favourably, with an average score slightly above the midpoint on the scale. However, there is notable diversity in employees' opinions about the quality of the working environment, as evidenced by the standard deviations reflecting variations in perceptions. Employees are most content with the flexibility of their work arrangements and the positive atmosphere in their workplace, showcasing TTU's success in creating a flexible and supportive work environment. Nevertheless, there is room for improvement concerning the adequacy of facilities and resources to support employee tasks.

The findings align with existing literature, emphasising the pivotal role of a conducive working environment in enhancing global employee motivation and overall job satisfaction. Scholars such as Kuvaas (2006) and Deci & Ryan (2000) highlight supportive leadership, effective communication, fair reward systems, and opportunities for professional growth as essential elements for creating a positive work environment. Positive interpersonal connections, avenues for skill improvement, and recognition of employee contributions are identified as key contributors to increased motivation, transcending geographical boundaries (Hackman & Oldham, 1980; Eisenberger et al., 1997).

In Africa, the impact of a conducive work environment on motivation aligns with global trends. Studies in sub-Saharan African nations, including Nigeria and South Africa, underscore the importance of inclusive and respectful work cultures for motivating employees (Oyeyemi & Adeoye, 2018; Meyer et al., 2018). Job security and fair treatment are identified as crucial motivators, aligning with cultural norms emphasising teamwork and supportive interactions to enhance motivation (Buitendach & De Witte, 2005; Bagraim & Saks, 2014; Gyensare et al., 2020).

To address these concerns, the organisation should focus on enhancing the quality of facilities and resources, potentially through equipment upgrades, additional training on utilising resources, and improved communication about available resources. Furthermore, TTU can further enhance the positive aspects of the work environment by offering team-building opportunities, recognising employee achievements, and ensuring employees feel valued. The standard deviation values indicate significant variability in employee perceptions, particularly a relatively high one for the statement on the adequacy of facilities and resources. This suggests that some staff members may consider the available resources insufficient. Addressing this variability is crucial to establishing a more stable and supportive work environment.

4.7.2 Objective 2: Evaluation of the level of employee productivity

The findings in Table 4.7 about employee productivity are consistent with existing research, providing a detailed understanding of various aspects of the concept. Overall, employees see themselves as quite productive, scoring an average of 4.10 on a 5-point scale. This aligns with Campbell's (1990) idea of assessing employee productivity to measure their impact on organisational success, emphasising the role of self-assessment in evaluating productivity. Breaking it down further, employees excel in motivation and dedication to contributing to the organisation's success, reflecting Borman & Motowidlo's (1993) concept of task performance—completing duties and being dedicated to organisational goals. On the flip side, the identified need to reduce errors underscores the importance of measuring accuracy, as stressed by Smith (2018), emphasising the need for precision in performance evaluation.

The findings, revealing that employees generally consider themselves highly productive, resonate with well-established concepts in organisational psychology. Drawing from Bandura's (1997) theory of self-efficacy, it is evident that employees hold a strong belief in their ability to perform their roles effectively, as reflected in the notably high average productivity rating. This self-assurance plays a pivotal role in their overall performance and job satisfaction. Furthermore, the observed high levels of motivation and dedication, as evidenced by their impressive motivation scores and consistent contributions, align with Self-Determination Theory as put forth by Deci & Ryan (1985). This theory posits that intrinsic motivation is driven by one's perception of meaningful work coupled with autonomy, competence, and relatedness within their role. Such intrinsic motivation is strongly associated with increased job satisfaction and enhanced performance.

The imperative to reduce errors, as evidenced by the least favourably rated statement, fits together with the rich literature on quality management and continuous improvement. In the organisational context, the delivery of high-quality work is pivotal for achieving success, an idea extensively promoted by Deming (1982). Thus, addressing this aspect is not only fundamental to bolster overall productivity but also to ensure customer satisfaction and enhance the organisation's competitive edge, in line with Total Quality Management (TQM) and Six Sigma methodologies, as advocated by Pande et al. (2000).

In the context of tertiary education, the study emphasises the importance of teaching effectiveness, research productivity, student engagement, and administrative efficiency, aligning with Delaney & Huselid's (1996) perspective. It suggests that university administrative staff possess the relevant attributes, significantly contributing to the institution's overall success. The moderate variability seen in employee responses mirrors the extensive literature on job satisfaction and performance. Differences in individual work styles, role complexities, and the level of support provided by managers can markedly influence job satisfaction and perceived productivity, as corroborated by Hackman & Oldham (1980) and Rhoades & Eisenberger (2002). This underscores the multifaceted nature of job satisfaction and motivation, recognising that not all employees respond uniformly to various motivational factors and workplace conditions.

The presence of qualities such as efficiency, proactivity, effective time management, resourcefulness, adaptability, organisation, openness to feedback, and high motivation underscores their paramount importance in enhancing productivity. These qualities seamlessly align with several established models of employee performance and effectiveness, particularly the Job Characteristics Model presented by Hackman & Oldham (1980). This model highlights the criticality of factors such as skill variety, task identity, task significance, autonomy, and feedback in enhancing overall performance and job satisfaction.

Finally, the research findings align with Parker and Wall's (1998) and Podsakoff et al.'s (2009) views on diverse factors influencing employee productivity. These factors include individual characteristics, motivation, job design, leadership, organisational culture, work environment, technology, work-life balance, well-being, and learning and development opportunities. The study emphasises the importance of considering these factors when developing strategies to enhance employee productivity within the university setting, contributing to the creation of effective strategies aligned with established models and theories. Ultimately, this fosters administrative productivity and contributes to the institution's and its students' success.

4.7.3 Objective 3: Assessment of how the motivation factors impact productivity

Employee Welfare (EW): The study found that caring for employees (such as providing good working conditions) is associated with higher productivity. This aligns with findings from other studies (Dufus & Chelladurai, 2018; Society for Human Resource Management, 2019; Oswald, Proto, & Sgroi, 2012). However, because the p-value is high in this study, we need to be cautious about how confident we are of this connection. To be more certain, we need future studies with larger samples and improved research methods to show how employee welfare really affects productivity. **Employee Relationships (EMR):** The study found that strong relationships among coworkers are associated with higher productivity. This supports the ideas of Maslow and Herzberg, who say that positive social connections at work are important (Maslow, 1943; Herzberg et al., 1959). Other studies, like the one by Eisenberger et al. (2001), also agree that

good relationships at work make employees more engaged and productive. This shows that it is really important to encourage positive relationships among employees for better productivity.

Leadership Style (LS): The study found that the way leaders lead can significantly affect employees' productivity. This aligns with Maslow and Herzberg's view of the importance of effective leadership in motivating employees (Maslow, 1943; Herzberg et al., 1959). Other research by Bass and Riggio (2006) also shows that bad leadership practices can hurt overall employee performance. So, organisations must invest in effective leadership to increase employee productivity.

Training and Development (T&D): The study showed that providing employees with opportunities to learn and grow is associated with higher productivity, which aligns with Maslow's (1943) and Herzberg et al.'s (1959) view of the importance of growth for employee motivation. Studies, such as that by Tannenbaum et al. (1991), support the idea that training and development can positively impact employee performance. Even though the study did not show a strong statistical connection, more research with better methods is needed to be sure about the extent to which training and development really affect productivity.

Conducive Working Environment (CWE): The study found a positive link between a good, supportive work environment and better productivity, which aligns with Maslow's and Herzberg's views on the importance of a positive workplace (Maslow, 1943; Herzberg et al., 1959). Other research, such as that by Gyensare et al. (2020), also supports the idea that a supportive work environment makes employees more motivated, satisfied, and perform better. However, because the study did not show a strong statistical connection, more research is needed to be sure about how a good work environment really affects productivity.

In short, the study's findings align with what we already know about factors that affect employee productivity. However, more research is needed to confirm these connections and to help organisations improve employee well-being, relationships, leadership, training, and the overall work environment, leading to lasting improvements in productivity. The study's results shed light on the complex interplay between motivational factors and employee productivity, consistent with existing research. Employee Welfare has a minor positive impact, highlighting the importance of employee well-being as a driver of productivity (Bakker & Demerouti, 2007). It aligns with the idea that a supportive, welfare-focused work environment can increase job satisfaction and motivation, ultimately enhancing productivity. However, the relatively high p-value suggests the need for more research to confirm the statistical significance of this relationship, emphasising the intricate nature of the connection between employee welfare and productivity.

Conversely, the substantial positive influence of Employee Connections underscores the critical role of interpersonal relationships within organisations, emphasising the importance of strong employee engagement (Saks, 2006). This highlights the need for organisations to cultivate a collaborative, supportive workplace culture. This aligns with research emphasising the role of social interactions and engagement in motivating employees and, consequently, enhancing productivity. Surprisingly, the notable negative impact of Leadership on employee productivity underscores the adverse effects of ineffective leadership styles and practices (Eisenbeiss et al., 2008). This result emphasises the crucial role of effective leadership in shaping employee motivation, satisfaction, and overall productivity. Poor leadership can reduce employee engagement, underscoring the urgency for organisations to invest in leadership development programs and enhance leadership quality to improve employee productivity.

Although training and development and a conducive working environment exhibit positive effects, the non-statistically significant p-values raise questions about the reliability of these relationships. Nevertheless, these findings are consistent with the existing literature, emphasising the role of training and development programs and supportive working environments in enhancing employee skills, motivation, and overall productivity (Noe et al., 2017; Becker & Huselid, 1998). Although not statistically significant, the presence of positive impacts suggests possible advantages of these factors in improving productivity, underscoring the need for additional research to assess their statistical relevance definitively.

4.7.4 Research Aim: Examining the effect of employee motivation on employee productivity

The strong positive correlation observed between employee motivation and productivity aligns closely with a wealth of previous research, further substantiating the notion that increased

employee motivation is intricately linked to heightened productivity (Sheetz, 2020; Zaidee et al., 2015; Chaudhary & Sharma, 2012). In simpler terms, when employee motivation rises, so does their productivity. Numerous studies in the existing literature support this reaffirmation. For instance, Sheetz (2020) conducted a comprehensive meta-analysis encompassing 37 studies, concluding that there is a robust positive correlation between employee motivation and productivity. In a similar vein, Zaidee et al. (2015) examined the relationship between employee motivation and productivity in a sample of 200 Malaysian firms, unequivocally establishing that employee motivation significantly influences productivity. Furthermore, in a distinct context, Chaudhary & Sharma (2012) examined 100 Indian firms and found that employee motivation was a pivotal predictor of productivity.

Numerous academic studies provide additional support for these conclusions. In a comprehensive investigation of the complex link between worker motivation and productivity in a sample of Pakistani businesses, Ali & Ahmed (2009) found that worker motivation had a significant and positive effect on productivity. In a different context in the United States, Kreisman (2002) conducted a detailed study of 200 firms and found that employee motivation was a critical predictor of productivity.

Across international boundaries, Bogdanova & Naunivska (2008) conducted a thoughtful examination of the association between employee motivation and productivity in Ukrainian firms, affirming the positive and significant impact of employee motivation on productivity. Azin & Reihane (2013) examined 150 Iranian firms, shedding light on how employee motivation significantly influences productivity. Lastly, in a comprehensive analysis encompassing 12 studies, Grant (2011) corroborated the robust, positive correlation between employee motivation and productivity, further emphasising the enduring nature of this relationship within the field of organisational studies.

The results underscore the significant role of organisations in cultivating an environment that fosters employee motivation and enhances overall productivity. Research indicates that by providing opportunities for both personal and professional growth, acknowledging accomplishments, fostering a supportive atmosphere, allowing employees autonomy, promoting transparent communication, and setting clear objectives, organisations can elevate employee motivation and subsequently improve productivity (Zaidee et al., 2015; Chaudhary & Sharma, 2012). Furthermore, it is vital for organisations to routinely evaluate employee motivation, using tools such as surveys and focus groups, to identify areas for improvement and implement targeted interventions (Kreisman, 2002; Bogdanova & Naunivska, 2008).

Organisations can also leverage employee motivation data to make well-informed decisions regarding resource allocation. This can involve investing in training and development programs and incentive systems that motivate employees to achieve their goals, leading to more efficient and effective initiatives that drive productivity (Kreisman, 2002; Bogdanova & Naunivska, 2008).

4.8 Conclusion

This study examined the relationship between employee motivation and productivity at Takoradi Technical University. The examination of employee demographics revealed a diverse workforce composition. The results demonstrated that employees generally expressed moderate satisfaction with their workplace and pinpointed areas that need attention. Furthermore, employees reported positive relationships with colleagues and supervisors, and they generally viewed leadership positively, although variations in commitment to professional development were observed. Employees considered themselves productive and highly motivated in their roles.

The regression analysis highlighted the substantial impact of employee relationships on productivity and raised concerns for leadership. Additional research is recommended to gain a clearer understanding of the roles of training and development, as well as the working environment within this specific context. In conclusion, the study underscores the significance of improving employee relationships and addressing leadership issues to enhance productivity at Takoradi Technical University.

5.0 CONCLUSIONS

5.1 Introduction



This research investigated how employee motivation influences the productivity of tertiary education staff, using Takoradi Technical University as a case study. In Chapter Five, the findings are summarised, conclusions are drawn, and recommendations are provided. The chapter also explores the policy implications of the study, discusses its contribution to knowledge, and provides suggestions for future studies.

5.2 Summary

The research employed a deductive approach and quantitative methods, with a primary focus on surveys and statistical analysis, to achieve its research goals of describing and explaining phenomena. The study specifically focused on senior non-academic staff members at Takoradi Technical University, who were carefully selected through purposive sampling. The researcher targeted the non-teaching staff members, who constituted 888, and a sample size of 221 was drawn. Data collection used structured questionnaires with a Likert scale for participant responses. The collected data underwent thorough analysis, including descriptive statistics and regression analyses, conducted in SPSS, with a strong commitment to ensuring data reliability, validity, and ethical standards.

The descriptive statistics showed that staff productivity and motivation are not evenly distributed. Positively, extracurricular activities, bonuses, and rewards are often well-regarded by employees, suggesting that they could be useful motivators. A favourable work environment is also enhanced by effective teamwork, open communication, and positive working relationships. The institution's leadership is widely recognised for fostering employee development and providing a positive example for others to follow. Additionally, workers express a high level of agreement about their productivity, demonstrating their drive and flexibility.

Nonetheless, there are difficulties regarding compensation, with only moderate consensus on appropriate benefits and income satisfaction. The degree of support one receives from superiors and co-workers can vary, affecting overall motivation. In addition, although training courses are generally interesting, some staff members believe they are not learning enough, and that facilities and resources would be used more effectively to support their jobs.

The regression analysis investigated how different factors affect employee productivity. Although age, gender, education, and experience appeared to influence these relationships, they were not statistically significant. Employee welfare, training and development, and the work environment, while having a positive impact, were not statistically significant. In contrast, employee relations had a strong, significant positive effect, whereas leadership style had a notable negative impact. The most powerful factor influencing productivity was employee motivation, which had a highly significant positive effect, underscoring its vital role in improving productivity.

5.3 Policy Implications

Harnessing employee motivation: The study emphasises the crucial role of employee motivation in improving productivity. Decision-makers should prioritise initiatives that aim to boost and sustain employee motivation. This could involve implementing motivational programs, acknowledging and incentivising accomplishments, and cultivating a workplace environment that fosters motivation. **Improving compensation and benefits:** The research underscores the need to enhance compensation-related aspects, including benefits and income satisfaction. Policy adjustments addressing these issues can result in higher job satisfaction and increased employee motivation. Ensuring fair and competitive compensation packages can be a strategic step.

Enhancing employee relationships: Positive workplace relationships, effective teamwork, and open communication contribute to a favourable work environment. Policymakers should actively support endeavours that promote these elements. This might involve encouraging team-building activities, establishing conflict resolution mechanisms, and facilitating open channels of communication to cultivate positive employee relations. **Tackling leadership challenges:** The study identifies a significant negative impact of leadership style on productivity. Policymakers should prioritise leadership development programs and training for managers and supervisors to enhance their leadership skills. Establishing leadership models that emphasise employee growth and effective communication can elevate employee motivation and productivity.

Optimising Training and Development: While training and development programs generally received positive feedback, some employees felt their learning needs were not fully met. Policymakers can review and refine training programs to ensure they effectively address employee development requirements. Continuous feedback and improvements in training content and methods can maximise the impact of these programs. **Efficient resource allocation:** To support employee productivity, decision-makers should assess and optimise the allocation of facilities and resources. Employees have indicated the need for more effective resource utilisation to meet their job demands. This may encompass infrastructure enhancements and resource allocation strategies aligned with employee needs.

Encouraging and Monitoring Extracurricular Activities: The study highlights that employees hold a positive view of extracurricular activities. Policymakers can promote and oversee these activities, which contribute to a constructive work environment. These activities may encompass sports, social events, or cultural programs that foster a sense of community and motivation among employees. **Employee acknowledgement and incentives:** Encouraging and institutionalising a culture of recognising and rewarding accomplishments can significantly boost motivation. Decision-makers can establish systems for employee recognition and institute reward programs that acknowledge outstanding performance and commitment.

5.4 Contribution to Knowledge

The outcomes of this research offer significant contributions to our current understanding of the subject matter. To start, the study reveals that employee motivation and productivity do not follow a uniform pattern, highlighting the intricate nature of these essential workplace elements. Secondly, the favourable reception of extracurricular activities, bonuses, and rewards among employees suggests their potential effectiveness as motivational tools, providing fresh insights into how motivation operates. The research underscores the importance of positive working relationships, teamwork, and open communication in cultivating a conducive work environment and expanding our understanding of organisational dynamics.

Furthermore, the study recognises the substantial influence of institutional leadership in employee development and role modelling. It contributes by confirming a substantial consensus among employees regarding their productivity, emphasising their motivation and adaptability, and enriching our understanding of how the workforce perceives itself. The study also highlights the complexities of compensation, with moderate agreement on benefit and income satisfaction, indicating areas for improvement. Additionally, the varying degrees of support from superiors and colleagues, and their effects on motivation, offer insights into workplace interpersonal dynamics.

The regression analysis takes the research a step further by exploring the impact of various factors on employee productivity. While factors such as age, gender, education, and experience have some impact, the lack of statistical significance opens new avenues for investigating their role in productivity. Moreover, the study's examination of employee welfare, training and development, and the work environment, while lacking statistical significance, nonetheless highlights their positive influence and prompts further research to establish their significance. The study's most notable contribution lies in underscoring the central role of employee motivation, highlighting its profound impact on productivity, thereby advancing our understanding of this crucial relationship in the workplace. Collectively, these contributions deepen our understanding of employee motivation, productivity, and related dynamics, offering valuable insights for future research and academic discussions.

5.5 Conclusion

The study concludes that there are differences in levels of motivation and staff productivity among postsecondary educators at Takoradi Technical University. Although extracurricular activities, bonuses, collaboration, and good working relationships all play a positive role in fostering motivation and a happy work environment, there are still issues with support from colleagues and superiors, as well as satisfaction with compensation. The results of the regression analysis indicate that several variables may affect worker productivity, but only worker motivation stands out as a highly significant driver. Therefore, the top goal for increasing staff productivity in this educational institution should be to promote motivation through

programmes such as rewards, leadership development, and training aligned with job requirements.

5.6 Recommendations

Based on the findings, the following recommendations are made. Create organised procedures to value and acknowledge your employees' contributions. Provide methods for rewarding outstanding work with bonuses and recognition. To effectively stimulate motivation and productivity, these incentives must be carefully tailored to each employee's unique preferences and driving forces. Regularly evaluate pay packages and make necessary revisions to keep them competitive in the labour market. To meet employees' expectations about their financial well-being, this method is essential. A well-thought-out compensation plan improves employees' overall financial security, which boosts motivation and output.

Create a supportive work environment by putting in place procedures and programmes that boost constructive teamwork among co-workers, open communication between departments, and good working relationships between subordinates and superiors. Creating a peaceful and encouraging work environment is essential for increasing motivation and output.

Develop training and skill-building initiatives tailored to the specific requirements of each position within the company. Incorporate ongoing evaluation and feedback systems into these training programmes to ensure they adequately meet employees' learning needs. This methodology guarantees that the training is closely aligned with the pragmatic requirements of the labour force, thereby enhancing motivation and efficiency.

5.7 Suggestions for Further Studies

To get information on employee motivation and productivity, future studies should investigate ways to reduce self-reporting bias. An increasingly precise picture of these elements could be obtained by combining survey data with other objective measurements or by employing different data-collection methods.

Consider conducting long-term studies to monitor worker productivity and motivation. This method will assist in identifying causal links and enable a deeper understanding of how these components change over time.

By comparing various organisations or industries, comparative studies can broaden the area of inquiry. Examine how workplace traits, cultural norms, and external influences affect the relationship between productivity and motivation across diverse settings. This will improve the generalizability of the findings and offer more thorough insights.

To gain deeper insight into the elements impacting motivation and productivity, complement quantitative data with qualitative research. Focus groups, observations, and interviews can all be used to find subtleties that quantitative data might miss.

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