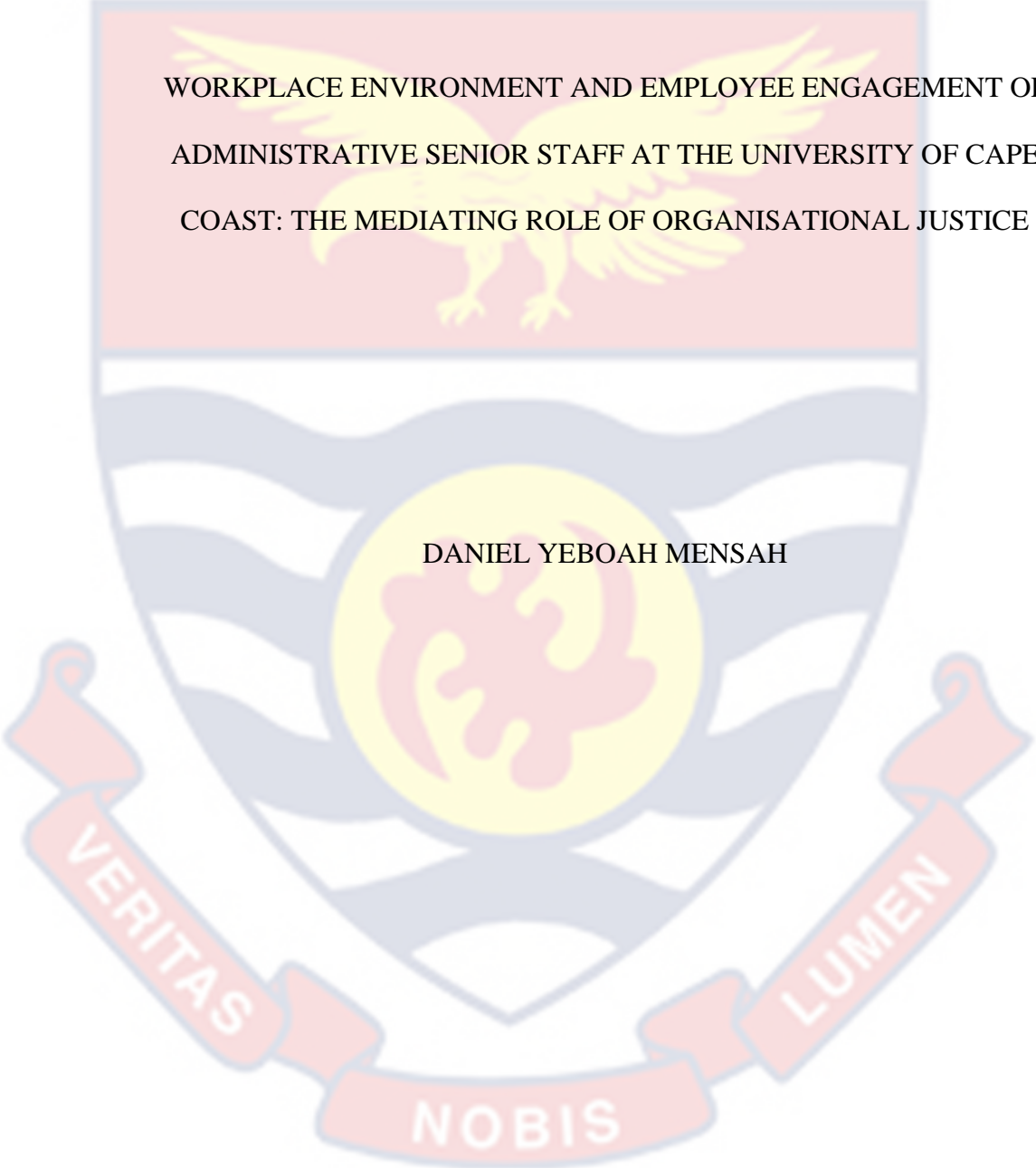


UNIVERSITY OF CAPE COAST



WORKPLACE ENVIRONMENT AND EMPLOYEE ENGAGEMENT OF
ADMINISTRATIVE SENIOR STAFF AT THE UNIVERSITY OF CAPE
COAST: THE MEDIATING ROLE OF ORGANISATIONAL JUSTICE

DANIEL YEBOAH MENSAH

2023

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ADMINISTRATIVE SENIOR STAFF AT THE UNIVERSITY OF CAPE
COAST: THE MEDIATING ROLE OF ORGANISATIONAL JUSTICE

BY

DANIEL YEBOAH MENSAH

Thesis submitted to the Department of Business Studies, College of Distance
Education, University of Cape Coast, in partial fulfilment of the requirements
for the award of Master of Commerce degree in Management

AUGUST 2023

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my original research and that no part of it has been presented for another degree in the University or elsewhere.

Candidate's Signature..... Date.....

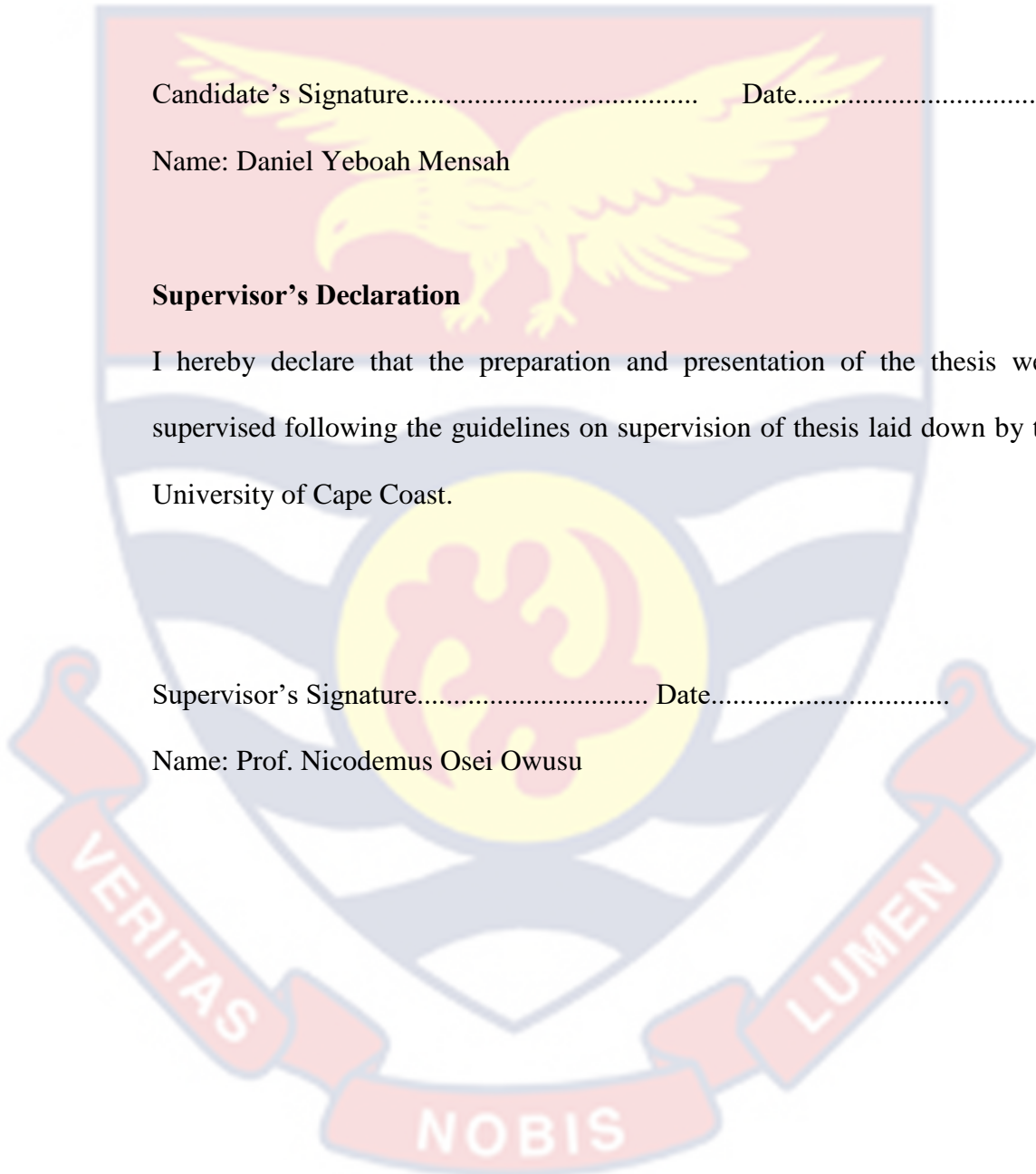
Name: Daniel Yeboah Mensah

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised following the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature..... Date.....

Name: Prof. Nicodemus Osei Owusu



ABSTRACT

This study sought to examine workplace environment's influence on employee engagement of administrative senior staff at the University of Cape Coast and the role of organisational justice in mediating such a nexus. The study adopted a quantitative approach. The simple random sampling technique was used to collect data from 209 staff from the University of Cape Coast through self-administered questionnaires out of a population of 478. Partial Least Squares (PLS) structural equation modelling was used to test the hypotheses postulated. The findings revealed that only two workplace environment variables (physical and workplace flexibility) had a positive significant influence on employees' engagement. Given the second study objective, the study found that organisational justice had a significant positive influence on employee engagement within the University. Finally, the study proved organisational justice mediated only the relationship between three workplace environments (physical, workplace flexibility and social) and employees' engagement. The study concludes that workplace flexibility work environment, a dimension of workplace environment, can only influence employee engagement by ensuring an atmosphere of justice and fairness as perceived on the part of employees. Therefore, the study recommends that the University management put mechanisms in place to allow employees to experience more engagement, supportive justice, and fairness at the workplace.

KEYWORDS

Workplace Environment

Physical Work Environment

Psychological Work Environment

Workplace Flexibility

Social Work Environment

Organisational Justice

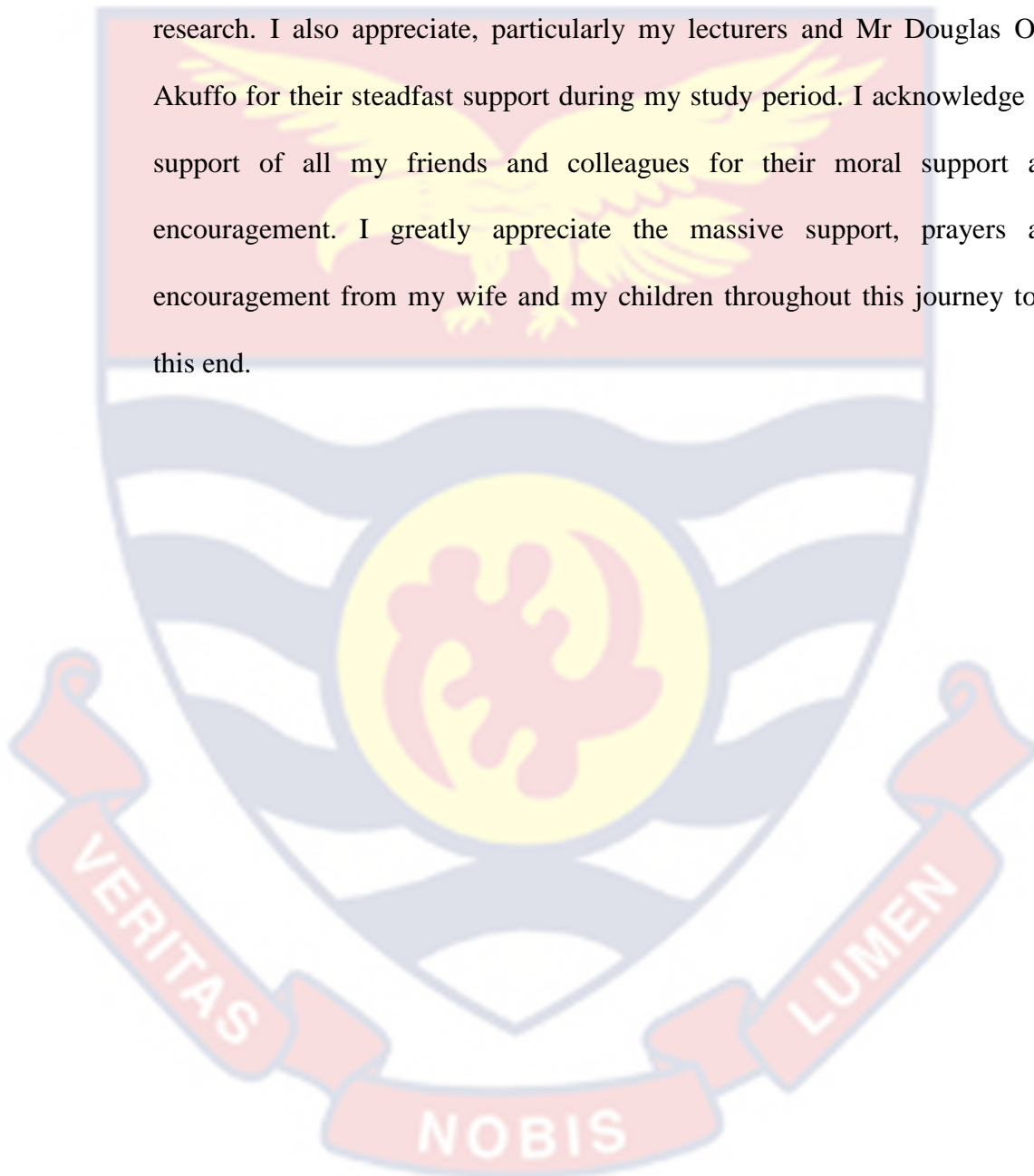
Employee Engagement

Administrative Senior Staff



ACKNOWLEDGEMENTS

I am grateful to my supervisor Prof. Nicodemus Osei Owusu, for his guidance and motivation that helped shape the work to its present level. His encouragement, constructive criticisms, and untiring efforts enhanced this research. I also appreciate, particularly my lecturers and Mr Douglas Okai Akuffo for their steadfast support during my study period. I acknowledge the support of all my friends and colleagues for their moral support and encouragement. I greatly appreciate the massive support, prayers and encouragement from my wife and my children throughout this journey to to this end.



DEDICATION

To my family.



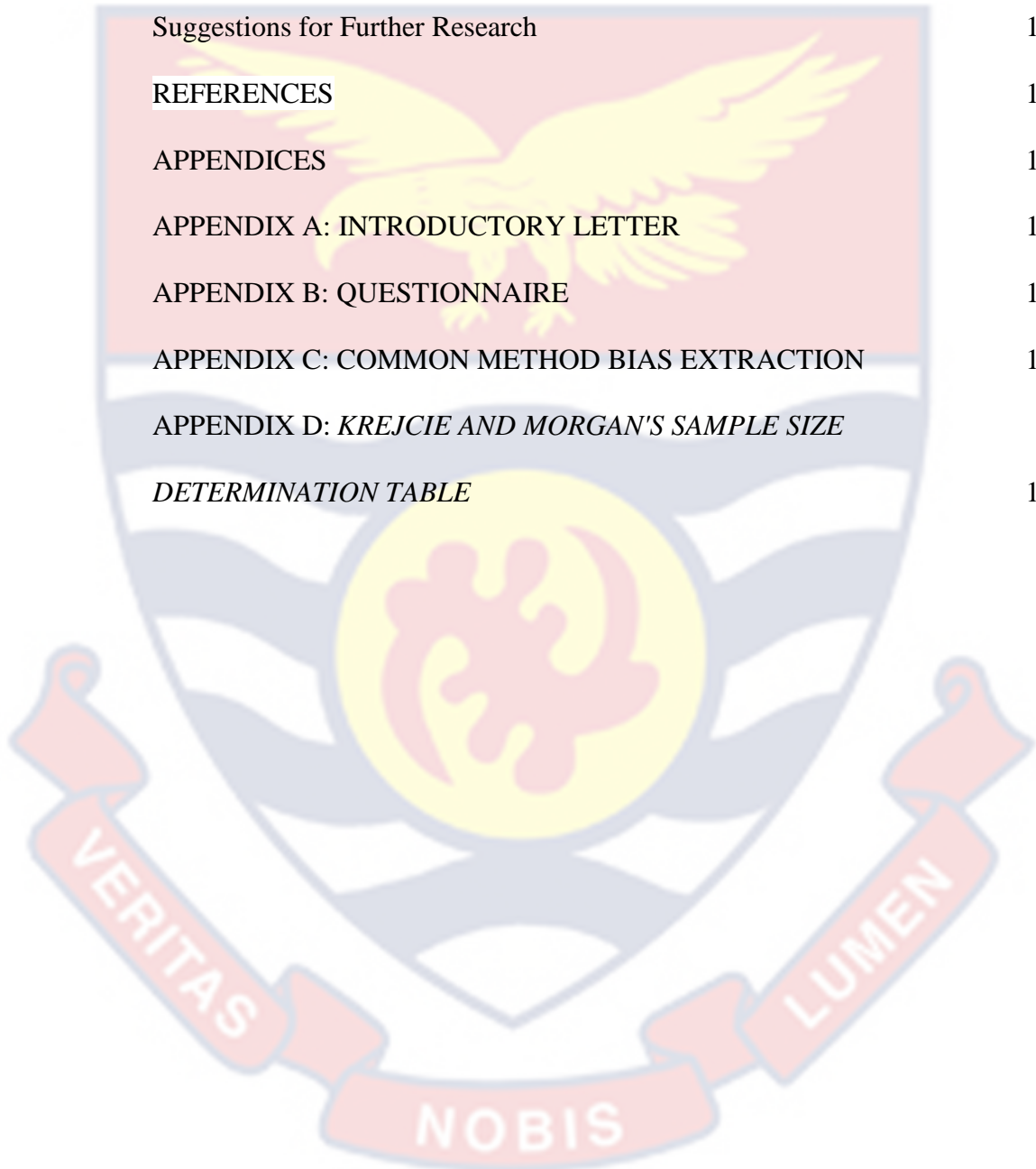
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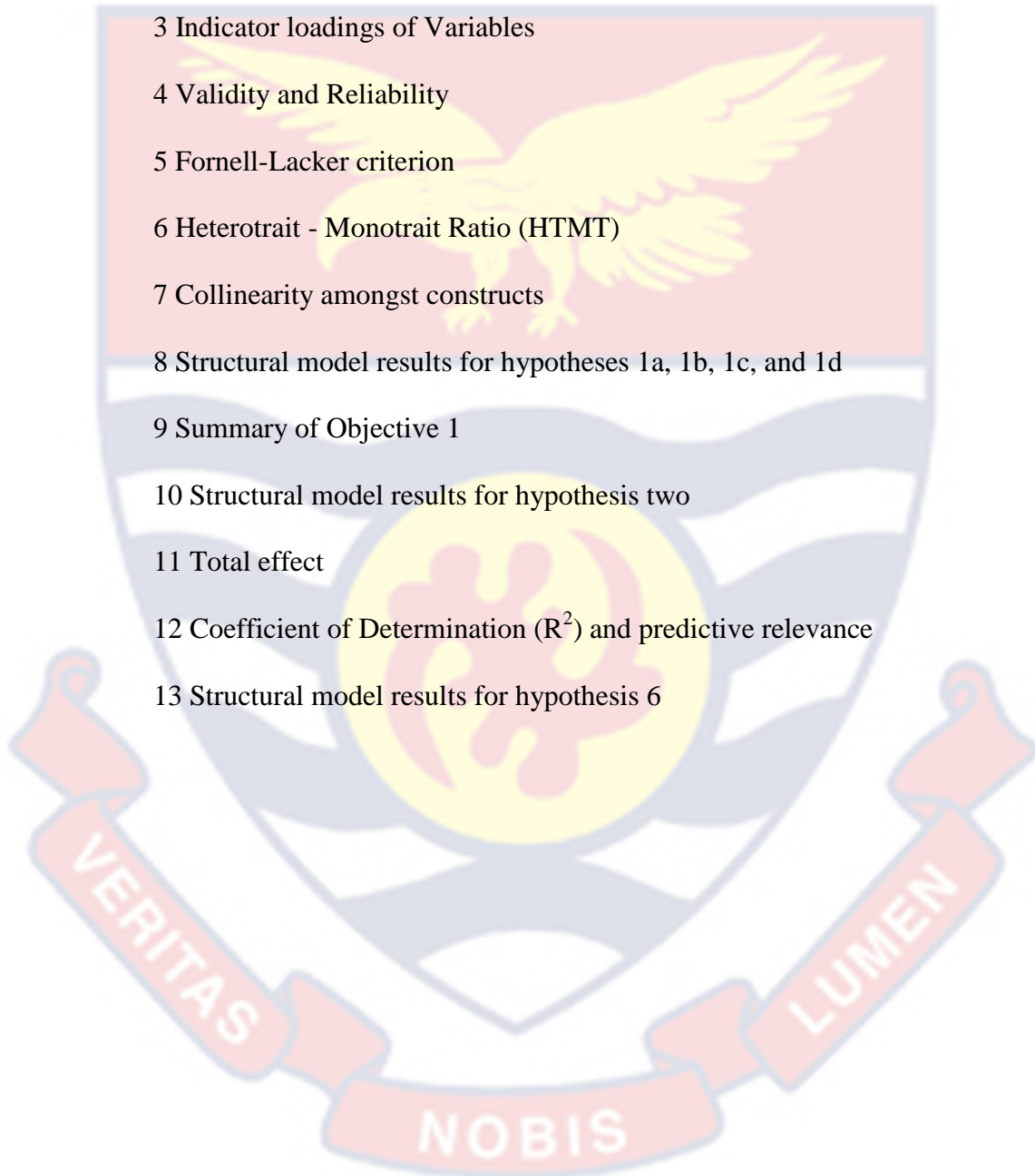
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CHAPTER ONE

INTRODUCTION

It is an unquestionable fact that employee in-role behaviours and task performance can promote organisational performance and success. However, research on workplace environment and activities also identify engagement behaviours (Tziner, Drory, & Shilan, 2021; Sisson, 2021 & Bantha, & Sahni, 2021) as an integral component of an organisation's performance. Nonetheless, organisational justice binds employees who work in it to behave by the existing justice in that organisation. If this understanding is drawn into the organisation, a set of norms has become an engagement in the organisation, so that employees must behave by the existing justice without feeling forced (Laras, Jatmiko, Nugroho, 2021). This study, taking into consideration the relevance and place of workplace environment, organisational justice and employee engagement was undertaken to evaluate the influence of workplace environment on employee engagement: the mediating effect of organisational justice. This section presents the background to the study which is centred on relationship between workplace environment and employee engagement including the mediating role of organisational justice. It comprised the statement of the problem, the purpose of the study, objectives of the study, significance of the study, delimitation of the study, limitation of the study, and organisation of the study.

Background of the study

The environment in which organisations operate today is highly competitive and many organisations are putting in place measures towards achieving operational excellence in order to improve their position in industry.

To achieve this, a lot of attention is shifting to the role of human resources in organisational performance (Albrecht, 2010). Evidence abounds that, employee engagement is one of the ways through which organisations can ensure success and stay in operational existence for the foreseeable future (Nasidi, 2019; Sibanda & Ncuba, 2014).

According to Rich et al (2010), employee engagement refers to "series of psychological states (cognitive, emotional and behavioural) that ultimately represents an intention to act and perform work effectively". Similarly, Shuck and Wollard (2010) defined employee engagement as the "cognitive, emotional, and behavioural energy an employee directs toward positive organisational outcomes". As opined by Nasidi (2019), employee engagement is of much concern to every organisation as it seeks to implement strategic measures that ensures that, employees have a heightened level of performance and commitment to the organisation. In view of this, every organisation needs to address a wide range of measures which would improve the degree to which employees are involved in their jobs and their performance levels. Employee engagement is an interplay of several factors. However, Anitha (2014) opined that, the most significant factor that affect employee engagement is work environment.

According to Tripathi (2014), work environment covers the actual physical conditions of the job, organisational and work culture. Work environments provide conditions for workers high and effective performance, making the best use of their skills, competence, knowledge and the available resources for the provision of high-quality services (Leshabari et al, 2008). The work environment is crucial in determining the extent to which employees

excel on the job. According to Kamanja et al (2019), the most intriguing dimensions of workplace environment that significantly influences employee engagement are; “physical work environment, psychological work environment, social work environment as well as workplace flexibility”.

The physical work environment broadly covers an aspect of physical conditions of the workplace and how employees interact with their environment (Kamaja, 2020). It includes machinery, office layout, temperature, ventilation and lighting, noise level and space (Agbozo et al ,2017). Over the past decades, there has been an increasing interest in research on the effects of physical workplace environment on employee engagement. At the international level, empirical studies have shown that, a conducive physical work environment reduces absenteeism, enhances retention, improves job performance and as well exerts positive effects on employee engagement (Chandrasekar, 2011). Also, Hammed and Amjad (2009), identified a positive effect between physical work environment and employee engagement and satisfaction on the job. In the same way, studies conducted by Samson et al (2015) affirmed that, physical work environment significantly influences employee engagement and subsequently, facilitates group cohesiveness.

Similarly, studies have been conducted in developing countries on the predictive role of physical work environment. For instance, Kamanja et al (2019), identified a positive effect between physical work environment and employee engagement in Kenya. Other studies conducted by Asanwo and Gabriel (2017) in Nigeria; and Taiwo (2010) in Lagos, also identified a positive association between physical work environment and employee engagement. In the Ghanaian context, studies conducted by Agbozo et al

(2017) revealed that, there is a statistically significant effect between physical environment and employee engagement. Again, Ahakwa et al (2021) also affirmed that, physical work environments positively affect employee engagement and productivity.

Studies have also shown the impact of psychological work environment on employee engagement and productivity. According to Agbozo et al (2017), psychological work environment can be considered as set of characteristics of work environment such as emotions, mood, attitudes, perceptions, motivation among others that affects how employees feel. For instance, Awan (2015), found out that “work environment which cover work life balance and psychological conditions and social dialogue leads to increases in employee engagement and organisational productivity”. In the same way, studies by Rein et al (2013) found that “employee’s psychological relatedness which include psychological needs motivate individuals to initiate positive behaviour which translate to higher performance”.

Another dimension that affects employee engagement and productivity is the social work environment which includes communication styles, relationship between superiors, subordinates, and co-workers, as well as teamwork (Agbozo et. al., 2017). The impact of social work environment on employee engagement has been extensively researched. Notable among them was a study conducted by Tahir and Awan (2015) on the impact of social work environment on employee productivity. According to Awan and Tahir, dimensions of social work environment such as supervisors support and relationship with co-workers contribute positively to employee engagement and productivity in banks and insurance companies in Pakistan.

Also, Arokiasamy (2013) found that a sense of belonging and social support at the workplace improves employee's performance and engagement. Fisher (2019) also found a positive association between social support and employee engagement among Nurses from nine private hospitals in Malaysia. Moreover, studies conducted by; Ahmed and Mackie (2014), Sharma and Dhar (2016) found that organisational support has a positive influence on employee commitment and engagement. Schaufeli and Bakker (2014) found that peer support provided by co-workers as positively related to work engagement and dimensions of vigour and dedication. Wang and Eccles (2012) found that social support increases feelings of relatedness among employees which contributes to employee engagement.

According to Maiya and Bagali (2014), employees prefer a work environment where the employer has implemented policies that enable them to reduce work and personal related conflicts. Organisations must implement flexibility initiatives effectively in order for the employees to appreciate and factor in the benefits of flexibility in a workplace. Flexibility for employees allows them to have a choice over how they work which enables them to balance their work and non-work lives effectively. There has been a lot of academic studies that have been conducted towards assessing the effects of workplace flexibility on employee engagement. Studies conducted by Hill, Hawkins, Ferris and Weitzman (2010) established a strong relationship between a flexible workplace and improved employee engagement, motivation, commitment and performance.

Research has proven that, the ideals of organisational justice have long been recognised as a foundation for effective functioning of organisations and

the personal satisfaction of their employees (Ajala & Bolarinwa, 2015; Albrecht, Bakker, & Gruman, 2015). According to Ohioyenoye (2019), "organisational justice is individual's perceptions of fair treatment received in an organisation". It is usually evaluated by comparing the reward employees receive from the job (salary levels, salary increases and recognition) to the effort, experience and education, competence and fairness in an organisation when their efforts are equitably rewarded (Albrecht, Bakker & Gruman, 2015).

Factually, it has been clearly articulated in literature that, organisational justice plays a pivotal mediating role in linking work environment to employee engagement in an organisation (Albrecht, Bakker & Saks 2015). Thus, in the work environment, employees feel obligated to engage themselves in role and extra role performance when they perceive a sense of justice in the organisation (Eder & Eisenberger, 2015). There have been ample academic studies that have examined the role of organisational justice on employee engagement (Karatepe 2011; Ohioyenoye 2019; Efanga & Akpan 2015; Okocha & Anyanwu, 2016; Oge, Ifeanyi & Charles-Gozie, 2015; Dabbagh, Esfahani & Shahin, 2012). Even though, the aforementioned studies attempted to link perceived organisational justice to employees' engagement, they failed to analyse the mediating role of organisational justice on workplace environment and employee engagement (affective, normative and continuance).

The above assertions suggest that there is a link between workplace environment and employee engagement and organisational justice. Nonetheless, what is not known is the extent to which these variables can

influence each other in the context of higher education in Ghana. Besides, employee engagement research that examines the effect of workplace environment-related aspects on employees' engagement is relatively scarce (Chua et al., 2014). This explains the need to conduct a study in this area to be able to have a deeper understanding of the linkage between workplace environment, employee engagement and organisational justice. It is in the light of this that this study is conducted.

Statement of the Problem

For the past two decades the tertiary institutions in Ghana have been confronted with a number of challenges such as lack of infrastructure, lack of funding, and higher demand for tertiary education causing high students-lecturer ratio (Education Sector Performance Report, 2010) just to mention a few. With these challenges, there has been low skills acquisition of graduates, which implies that the various forms of training being offered by the country's tertiary institutions are not addressing the needs of the labour market (National Employment Policy, 2009; Education Sector Performance Reports, 2010; Education Sector Performance Reports, 2011).

In a dynamically changing world, public tertiary institutions must increasingly search for new ways of jump-starting employee engagement by encouraging new ideas and initiatives to address challenges confronting them. This is especially needed as leaders and senior staff are increasingly unable to initiate and provide support for the various initiatives that are needed in their institutions (Berman & Kim, 2010).

However, although various measures have been taken to address these challenges, there has not been any improvement due to lack of real employee

engagement which has been slow and difficult to encourage (Goode, 2017). The lack of employee engagement has given rise to a critical question: Why is that with so many academically-accomplished people on university campuses, employee engagements in the operations of the universities have lagged? In answering the above-mentioned question, many scholars have focused on workplace environment that brings about conservatism and therefore does not allow well-planned formal system to be put in place for employee engagement (Koetzier & Alon, 2013).

In addition, Büschgens et al (2013) have argued that a developmental organisational culture is essential for the success of employee engagement. Accordingly, a number of studies have investigated the relationship between workplace environment and employee engagement in organisations (Cakar & Ertürk, 2010; Tuan & Venkatesh, 2010; Büschgens, Bausch, & Balkin, 2013). However, while the issue of employee engagement and workplace environment has received increased attention over the past decades, none of these studies used mediating role of organisational justice. Consequently, the existing knowledge on the mediating effect of organisational justice on the relationship between workplace environment and employee engagement in the Ghanaian Tertiary Institutional context has been lacking.

Thus, while the extant research on workplace environment offers a good theoretical basis, the relationship between workplace environment and employee engagement with the mediating role of organisational justice is less clear. This has caused a general lack of knowledge on the mediating role of organisational justice in the connection between workplace environment and employee engagement (Zheng, Yang & McLean, 2010; Hartnell, Yi Ou, &

Kinicki, 2011). This failure to address the influences of organisational justice as mediator limits the potential value of the current literature. Besides, most of these studies only used multiple regression which is not vigorous enough to explain the relationship between multiple independent and dependent variables and therefore failed to confirm the difference they were looking for. (Karatepe 2015; Efanga & Akpan 2015; Okocha & Anyanwu, 2016; Oge, Ifeanyi & Charles-Gozie, 2018; Ohioyenoye 2019; Dabbagh, Esfahani & Shahin, 2021). Finally, none of the studies also considered qualitatively the challenges in applying workplace environment to improve employee engagement in the tertiary institution. Thus, although some recent literature has emerged to address this gap in knowledge, (Minkov & Hofstede, 2012) further information is required to close the gap in literature as opined by some experts (Gregory et al. 2009; Zheng, Yang, McLean, 2010; Hartnell, Yi Ou, & Kinicki, 2011).

Finally, in management, there is a consensus that the contingency and multiple approaches to employee engagement is the most appropriate (Denison, 2015; Denison and Mishra, 2017; Fey and Denison, 2018; Denison, Haaland, S. and Goelzer, 2019). However, the most widely dispersed management theories and techniques are based on western ideologies and values systems and their uncritical transfer to developing countries has in many ways contributed to organisational inefficiency and ineffectiveness' (Punnett, 2019; Leung, Bhagat, Buchan, Erez, and Gibson (2020). It is, in a way, important that the relationship between workplace environment and employee engagement including the mediating role of organisational justice in shaping the management strategy of indigenous organisation leaders in

developing countries like Ghana is well examined, hence this study. It is against this background that this study is conducted. Therefore, this research was conducted to investigate the influence of and workplace environment workplace environment on employee engagement of administrative senior staff at the University of Cape Coast.

Purpose of the Study

The purpose of the study is to determine workplace environment's influence on employee engagement of administrative senior staff at the University of Cape Coast and the role of organisational justice in mediating such a nexus.

Research Objectives

In order to achieve the overall purpose of the study, the following specific research objectives were pursued.

1. Assess the influence of workplace environment on employee engagement of administrative senior staff at the University of Cape Coast.
2. Determine the effect of organisational justice on employee engagement of administrative senior staff at the University of Cape Coast.
3. Examine the mediating role of organisational justice on workplace environment and employee engagement behaviour nexus among the administrative senior staff at the University of Cape Coast.

Research Hypotheses

Based on objective one: influence of workplace environment on employee engagement, the following hypotheses were tested;

H1: There is a significant positive relationship between physical work environment and employee engagement.

H2: There is a significant positive relationship between psychological work environment and employee engagement.

H3: There is a significant positive relationship between workplace flexibility and employee engagement.

H4: There is a significant positive relationship between social work environment and employee engagement.

Based on objective two, the influence of organisational justice on employee engagement, the following hypothesis was tested;

H5: There is a significant positive relationship between organisational justice and employee engagement

Based on objective three, the following hypotheses were tested;

H6: There is significant positive mediating effect of organisational justice on the relationship between workplace environment and employee engagement.

Significance of the Study

The study seeks to analyse the effects of workplace environment on employee engagement in the context of staff of University of Cape Coast. Findings of the study will enable Human Resource (HR) Officers develop appropriate HR policies to address issues pertaining physical, psychological, social and flexible working conditions of employees. Findings of the study will be useful to management of universities in Ghana and beyond, in that, it would enlighten management on ways in which staff engagement can be improved upon to achieve set goals and targets. Furthermore, the study will contribute to the expansion of the existing knowledge in this area of study.

Future researchers will also find the study useful in providing literature and theories required to undertake research in this area. The findings of the study will aid to identify research gaps for future research purposes. Other scholars may use the findings of the study as reference material either for comparison purposes or for further studies in related discipline.

Delimitation of the Study

The study seeks to assess “the effects of workplace environment on employee engagement”. Regarding content, the dimensions of workplace environment considered in this study includes; physical work environment, social work environment, psychological work environment, and workplace flexibility. The specific aspects of organisational justice included in this study are; distributive justice, procedural, and informational justice. With regards to geographical location, the study was exclusively carried out in the University of Cape Coast in the Cape Coast Metropolis in the Central Region of Ghana. The study participants consisted of all staff in the University of Cape Coast. Therefore, this study excludes other tertiary academic institutions in different parts of the country.

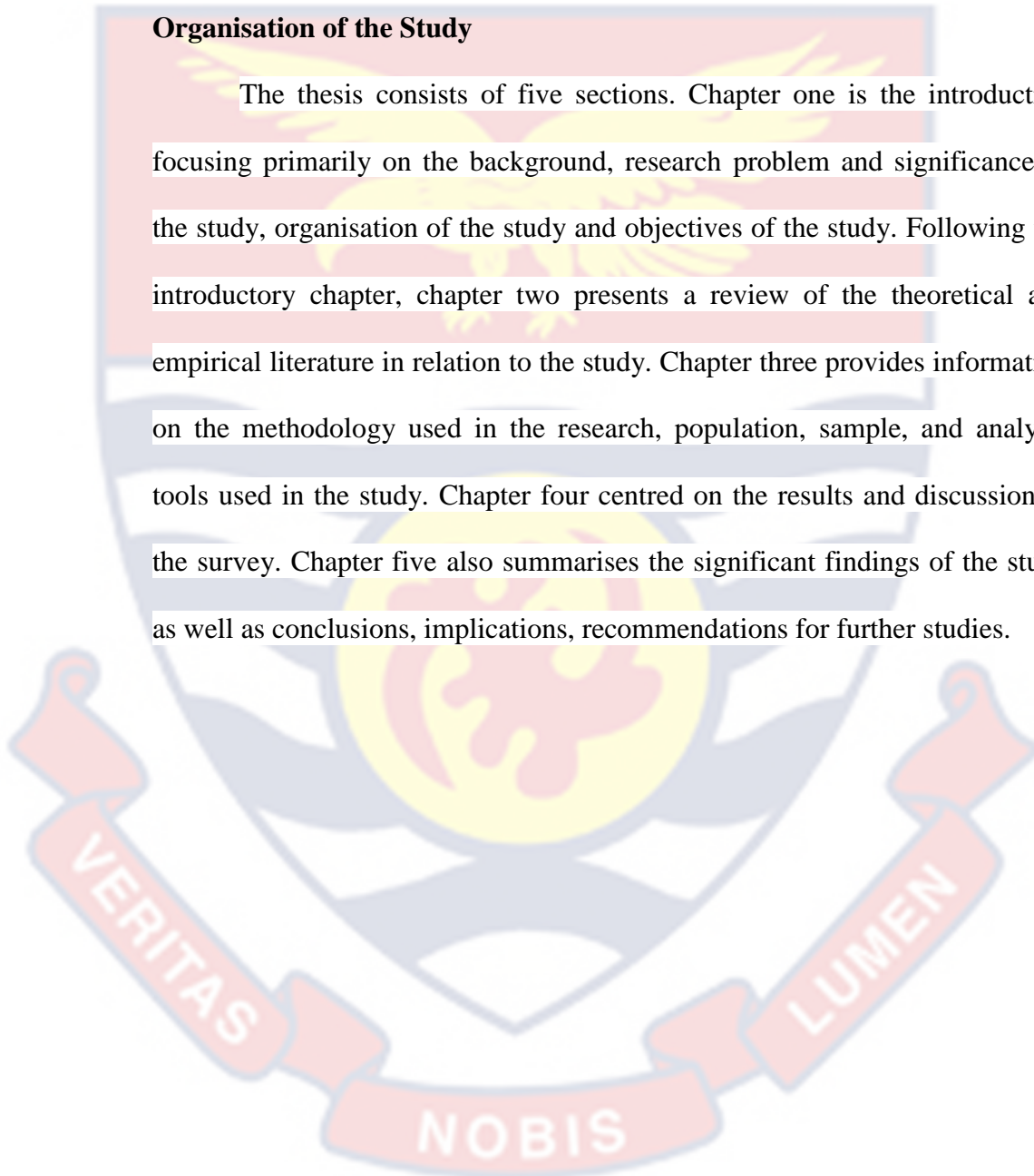
Limitations of the Study

This study used a single primary data source (administrative senior staff of UCC). Data from a single source can be affected by the potential presence of common method bias involving the study results. The presence of the common method bias necessitated using statistical tools to test for bias. Since the study employed a questionnaire in collecting data and it was cross-sectional, staff did not have the opportunity to indicate other contextual factors that could influence their level of engagement. Notwithstanding, studies of the

exact nature have been advanced in the literature, where some dimensions are investigated and recommendations are made. Due to the use of questionnaires in collecting data, some respondents failed to answer, in which case, the study could not capture the response of the entire sample.

Organisation of the Study

The thesis consists of five sections. Chapter one is the introduction focusing primarily on the background, research problem and significance of the study, organisation of the study and objectives of the study. Following the introductory chapter, chapter two presents a review of the theoretical and empirical literature in relation to the study. Chapter three provides information on the methodology used in the research, population, sample, and analysis tools used in the study. Chapter four centred on the results and discussion of the survey. Chapter five also summarises the significant findings of the study as well as conclusions, implications, recommendations for further studies.



CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter provides a review of the theoretical and the empirical framework on workplace environment, organisational justice and employee engagement. According to Okoli and Schabram (2010), literature review is necessary to provide a description of the content and quality of knowledge already available, and to present readers the significance of previous work.

The review also shows how these constructs relate in a public educational setting. This chapter comprised the study's research problem, research objectives and hypotheses. The purpose of the study was to determine workplace environment influences on employee's engagement and the role of organisational justice in mediating such a nexus. The write-up of the chapter begins with review of theories underpinning the study, and proceeds to addressing conceptual and empirical issues of workplace environment, organisational justice and employee's engagement.

Review of Theories Underpinning the Study

Workplace environment and employee engagement derive most of their theoretical foundations from several theories. Undoubtedly, the complex nature of public educational sector demands a workplace environment approach that emanates from multiple behavioural perspectives as this will be ideal for achieving employee engagement and high performance. Notable among these is the human capital theory. In this study, the human capital theory is used to establish the link that exists between workplace environment and employee's engagement in the public educational sector. Also, the social

exchange theory will be used to establish the relationship between workplace environment, organisational justice and employee engagement.

Human Capital Theory

The Human Capital Theory was postulated by Schultz (1961) and developed extensively by Gary S. Becker in his work on the economics of employer-provided environment (1962, 1964). Bohlander et al. (2007) define human capital as the knowledge, skills, and capabilities of individuals that have economic value to an organisation. The Organisation for Economic Cooperation and Development (OECD, 2001) describes human capital as the knowledge, skills, competencies, and attributes embodied in individuals by reason of the working environment that facilitate the creation of personal, social and economic well-being. Marimuthu et al. (2009) as cited in Neagu, Lazar, Teodoru & Macarie (2016) present it as knowledge required and acquired by employee in a work environment that increases the employees' capabilities and engagement in performing activities of economic values.

The human capital theory provides that workplace environment which imparts useful knowledge and character into employees, consequently increases their engagement, productivity and incomes (Becker, 1964). Becker differentiates between specific human capital and general human capital. He refers to specific human capital as expertise acquired through education of the environment which is particularly for a firm (firm-specific or context-specific skills). General human capital, on the other hand is knowledge acquired through education and a proper relationship with the environment which is valuable across board (general skills example, reading and writing).

Becker sees human capital to be similar to physical means of production, for instance factories and machines. He therefore states that investments can be made in employees through the establishments of an effective environment and the employees' engagement of the investment depends in part on the rate of return on the investment. Bassi and McMurrer (2016) proffer that, the human capital theory propounded by Becker has shown strength and continues to be the major theory used for appreciating human capital investments from both the individual's and firm's perspective.

The human capital theory is relevant to this study because it looks at an employee's resource as the knowledge, skills, competencies, experience and attitudes that employee possess to facilitate the realisation of the objectives of the organisation. These skills, competencies, knowledge amongst others can only be shaped and developed by ensuring an effective workplace environment and engagement of the employee. Through the workplace environment, organisations will enhance their human capital base for higher employee engagement, hence job performance. The theory states that people are worth investing in as a form of capital. Hence, Bratton and Gold (2015), state that the engagement of employees and the results achieved can be considered as a return on investment in the justice system and workplace environment of the educational institutions.

Social Exchange Theory

The social exchange theory (SET) was initiated by Homans in 1958 (Devan, 2006). The theory refers to a two-sided rewarding process involving two or more social groups engaged in tangible or intangible exchanges (Balu, 1964; Rasoolimanesh et al. 2015). It implies that social behaviour is the result

of an exchange process (Soieb, Othman & D'Silva, 2013). Social exchange theory aims to explain human behaviour in social exchange, and differs from the economic exchange theory through two assumptions: general expectations of future return with uncertainty and long-term relationships rather than one-off exchange (Blau 1964). The main reason for this exchange is to maximize benefits and minimize costs (Soieb et al. 2013). The theory has been used in many fields, especially in investigating workplace environment and engagement among staff (kheng et al. 2013; Zhang, Zheng & Darko, 2018).

According to Blau (1964), SET in the environment of an organisation has the principle that employees might feel obliged toward their supervisor, co-worker, or organisation if they have received any benefit from an exchange with the individual or the organisation in the past. Konovsky and Pugh (1994) suggest that the immediate supervisor or leader is an agent of the organisation. Therefore, because a supervisor has his/her own exchange relationship with employees and can influence the relationship an employee has with the organisation, supervisors are considered to be a pillar that supports the social exchange framework (Tekleab & Chiaburu, 2010). The theory has the basic principle that employees will pay back their supportive leaders by demonstrating positive behaviours and attitudes, which contribute positively to workplace environment, organisational justice, and employee engagement (Xerri & Brunetto, 2013; Choi, Kim, Ullah & Kang, 2016).

In this study, it is postulated that based on the SET, leaders ensure a specific working environment and create a supportive employee engagement in the organisation which in turn stimulates engagement among employees based on the reciprocity principle (Gouldner, 1960). Leaders create an

engaging supportive working environment by providing engagement resources in advance, not as a direct reward of performance by employees (Schulte, Hauser & Kirsch, 2009). This theory, therefore, implies that employees will increase their loyalty, engagement, and work performance since they are obliged to return the act of kindness that they have received (Aselage & Eisenberger, 2013). Hence, the above descriptions depict that when employees are given more engagement-relevant resources, the more trust and fairness will be perceived by them exist in the organisation. This will, in turn, make the employees obliged to take on the extra role behaviour (Organ, 1988) which is important in seeding engagement behaviour among the employees. The larger the obligation, the greater it will exert the engagement on the employees (Blau, 1964).

Deductions from the theoretical review

The human capital theory supports the view that workplace environment is contextual, depending on the goal and the environment. Given the complex nature of the tertiary educational sector and the various conflicting goals tertiary institutions in Africa are set out to achieve, a look at workplace environment based on just a physical or visible perspective will give a myopic view of the impact of workplace environment in organisational setting. Therefore, if the goal is to stimulate a good workplace environment to deal with complex organisational problems, an effective workplace environment can best be approached from a multi behavioural perspective. This gives a background for approaching the workplace environment-employee engagement link from the four engagement-related working

organisational environment proposed by Ricard et al. (2017) and Lewis et al (2018).

The social exchange theory as used in this study, supports the proposition that an employee's engagement is dependent on workplace environment and the justice system within the organisation. The extent that workplace environment and justice influences employee engagement is based on the principle of reciprocity. Engagement can, therefore, be spurred in the tertiary education if leaders adopt behaviours that communicate the right perception of trust, fairness and support for engagement to employees. In addition to this, tertiary educational leaders can achieve the goal of stimulating an effective engagement among employees if the resources for engagement are provided, not necessarily as a reward for employees' performance. When such resources and support is provided in advance, it gives employees perception of an engagement supporting climate.

These theories apply to this study since the engagement of administrative senior staff' is expected to be influenced by workplace environment, which requires funding as an investment and good engagement as a return. Based on the human capital theory, the idea of investing in employees has gained great attention due to the fact that organisations' greatest assets are their human resource base and they (organisations) reap what they sow in their human resource in terms of good job performance. Organisations that have a dream to outperform their competitors can only realise it with personnel who have the requisite skills, knowledge and abilities through the provision of a good workplace environment and justice. This can be achieved through the provision of proper workplace environment and an

efficient justice system as an investment. In summary, workplace environment and provision of justice resources will stimulate engagement among employees.

Conceptual Review

The conceptual review sets out the conduct of this study. The study proposes that workplace environment and employee engagement is scientifically operationalized in the contest of this study. Furthermore, it is proposed that there are statistically significant positive correlations between workplace environment and employee engagement components and organisational justice among administrative senior staff at University of Cape Coast. Further, concepts like workplace environment, organisational justice and employee engagement were also treated under this conceptual review.

Concept of Workplace Environment

According to Tripathi (2014), the work environment can be defined as the environment in which people work that include physical setting, job profile, culture and market condition. Each aspect is inter-linked and impacts on employees' overall performance and productivity. It is the quality of the employees' workplace environment that most impacts on their level of motivation and subsequently performance. The work environment can be thought of simply as the environment in which people work (Briner, 2000) as such; it is a very broad category that encompasses the physical setting (e.g. heat, equipment) and characteristics of the job itself (e.g. workload, task complexity). He adds that it also encompasses broader organisational features (e.g., culture, history) and even aspects of the external organisational setting (e.g., local labour market conditions, industry sector, work-life balance).

Kamanja et al (2019), also indicated that aspects of the workplace environment which influences performance include the physical work environment, psychological work environment, social work environment as well as workplace flexibility. The physical work environment encompasses the physical conditions of the workplace and the manner in which employees relate with their environment (Kamaja, 2020).

The psychological work environment as explained by Agbozo et al (2017), include emotions, mood, attitudes, perceptions, motivation among others which characterises the workplace and has can potentially affect employee performance.

Another crucial dimension of the workplace environment that affect employee behaviour and ultimately work performance is the social work environment. According to Agbozo et al (2017), the social work environment include communication styles, relationship between superiors, subordinates, and co-workers, as well as teamwork.

Flexibility of the workplace is yet another important dimension of workplace environment. Maiya and Bagali (2014), explained that a work environment where the employer has implemented policies that enable them to reduce work and personal related conflicts is one that most employees desire. Good working condition is relevant to all organisations, whether private or public, local or corporate. Working conditions involve work environment and other factors that come together to bring the best out of employees. Such factors include workload, job hours, legal rights, the physical environment and organisational climate (Ali & Adan, 2013). Ali & Adan (2013), identified that poor working conditions of employees can result in absenteeism, stress-related

illness, and low commitment and performance among employees. However, organisations that offer good conditions of service to their employees' experience creativity, financial health and great performance among their employees (Krekel, Ward & De Neve, 2019).

Employees in many organisations are encountering working problems related to workplace environmental. It has been argued by Pech and Slade (2006) that employee disengagement is increasing, and it has become imperative to make workplaces that positively influence the workforce. Employees' comfort on the job, determined by workplace conditions and environment, has been recognized as an important factor for measuring their productivity (Leblebici, 2012). In today's dynamic and competitive business world, a healthy workplace environment makes good business sense. Managers should not just focus on the employees' pay packet with the assumption that it is proportionate to performance (Heath, 2006). Organisations deemed as a positive place to work will have a competitive edge over the others.

Challenges in the Working Environment

Employees in almost every organisation have certain peculiar challenges that they face with respect to the execution of tasks in the workplace. These challenges range from financial demands to health and safety issues, human relations and communication among employees of the same rank, subordinates and superiors. Some of these challenges include poor ventilation and lighting, inadequate floor/office space, improper tools, furniture, lack of protective cloths, non-existing insurance policies and lack of management support. These individual factors and conditions in the workplace

most often than not, impede the progress and overall performance of employees on the job.

As mentioned in a study by Vischer (2007), the physical factors which include; office space, improper furniture as well as poor ventilation and lighting can lead to some common types of accidents - tripping and striking against an object - which in turn can cause some pain on the individual involved. The absence of health and safety policies in some organisations such as insurance cover for the injured on the job, sick leave with full remuneration, better health care, appropriate tools and machinery for the right work, safety tips and protective clothing on certain specific jobs pose some sort of challenge to employees whose responsibility is to ensure the job is done.

The communication pattern, reporting relationships and the general interpersonal relations in organisations may pose certain challenges to how individuals perform. According to Sundstrom, Town, Rice, Osborn & Brill (1994), communication and interpersonal relations play a major and vital role in the overall performance of individuals in a firm, especially, where employees are on assembly line, where the output of one employee is the basis for the other employee to act. The psychosocial factor of the work environment is generally considered to be one of the most important issues in contemporary and future societies. They refer to the interactions between the environment and working conditions, organisational conditions, functions and content of the work, effort, workers' individual characteristics and those of members of their families (Vischer, 2008). Therefore, the nature of the psychosocial factors is complex, covering issues relating to the workers, general environment and work. Individual association with the working

environment is important as they impact upon the ability of the individual to take control of their work and the level of stress they experience within the workplace (Warr, 2002).\

Consequences of Ineffective Work Environment Factors in the Organisation

Previous studies have demonstrated a strong relationship between low levels of work environment, productivity and work issues such as; high turnovers, absenteeism and lower work performance (Clark et al., 1998; Drago and Wooden, 1992; Freeman, 1980; Gordon and Denisi, 1995; Judge, Thoresen, Bono & Patton., 2001). Work and worker attitudes according to Griffeth, Hom, & Gaertner, (2000), have been identified as some of the best predictors of staff turnover. That is, workers who usually report low levels in terms of their performance and have unimproved conditions under which they work are much more likely to be searching for alternative employment.

Meyer and Allen (1997) in their study extended the ‘intentions to quit’, by assessing the opinions of the employee to company loyalty, employee mobility and willingness to leave the current employment for better monetary incentives and concluded with a positive relationship, implying higher rates of quitting and high rates of absenteeism will be the result on the occasion of unimproved working environments and conditions under which employees work.

Workplace Environment Constructs

Several factors in the working environment play various roles in the overall output of employees in any work environment. These factors include among others, wages and salaries, bonuses, other financial incentives, fringe

benefits, job security, ethics, work relations, the level of comfort felt by an employee as well as the physical job to be done and the job environment. These factors can be generally classified under financial and non-financial factors. Financial factors in the workplace are basically monetary features such as wages and salaries, bonuses and other financial incentives that tend to influence the way employees work and their overall output. Non-financial factors, on the other hand, are factors other than monetary rewards and incentives that play vital roles in the conditions under which employees work in any organisation (Robescu & Iancu, 2016).

The workplace environment comprises various factors that are imperative determinants of employee performance (Lambert, 2001). These factors may positively or negatively contribute to achieving maximum employee performance. Kamanja, et al (2019), identified “physical work environment, psychological work environment, social work environment as well as workplace flexibility” as the four dimensions of workplace environment that significantly influences employee engagement.

Physical Work Environment

What constitutes the physical environment has been defined by many authors in different ways. Some believe that the physical environment represents the availability of equipment, appliances and protective clothing at the workplace (Gerber, et al., 1998). Some also believe that the physical environment represents neatness, convenience and attractiveness of the work environment (Stajkovic, & Luthans 1998). Schabracq, Winnubst and Cooper (2003), on the other hand, see a good and healthy physical environment as that which is devoid of unfriendly working conditions like noise, slipperiness,

cold, heat, inadequate lighting and odour. The absence of these distractive conditions offers employees the necessary comfort needed to enhance their performance. Poor physical work conditions like heat, poor lighting, poor furnishing, space and noise create discomfort for staff which results in stress.

If working conditions are good - for example, clean and attractive surroundings - employees will find it easier to carry out their jobs. On the other hand, if the working conditions are poor - like dirty, noisy and unsafe surroundings - employees will find it difficult to carry out their work (McConnell, 2003). Oswald (2012), found that a significant relationship exists between the physical working conditions - such as the level of interaction - and the comfort of employees at the workplace with a level of employees' performance in Pakistan.

Thus, it is the responsibility of employers to provide their employees with the optimal level of physical conditions necessary to carry out their work which they have been trained to do. This can affect the performance of the organisation as well as reduce profitability by increasing cost. The provision of inadequate equipment and adverse working conditions have been shown to affect employee commitment and intentions to stay with an organisation. Gutnick (2007) estimates that improvements in the physical design of the workplace may result in a 5-10 per cent increase in employee performance.

Psychological Work Environment

Rewards can be financial and non-financial (Luthans, 2000) and they can be utilized positively to enhance performance of employees. Rewards can also be intrinsic or extrinsic. Intrinsic rewards are inherent in the job itself along with what the employee enjoys as a result of successfully completing a

task or attaining his projects. Extrinsic rewards on the other hand are external to the task of the job, like pay, work condition, fringe benefits, security, and contract of service. A reward package can influence employee performance; it can help to increase employee performance by enhancing employee skills, knowledge and abilities in order to achieve organisational objectives (Ajila and Abiola, 2004). Studies have revealed that if an organisation fails to reward employees, it will decrease employee performance and that an efficient reward system can be a good motivator but inefficient reward system can lead to demotivation of employees in terms of low performance, internal conflicts, absenteeism, high turnover, lack of commitment and loyalty and lateness (San, et al 2012).

Workplace Flexibility

The concept of flexible arrangement can differ depending on how it is interpreted. In this thesis the conceptualization of flexible work arrangement is the type of flexibility the employee has in the form of making decisions as to where, when and how to perform work. The type of flexible work arrangements in this thesis is a flexibility that provides an employee, and not necessary the employers flexibility in decision making regarding how to balance work and other essential life activities (Allen, Johnson, Kiburz & Shockley, 2013; Lehdonvirta, 2018). Flexible work arrangement, in this sense, is therefore describes an employee's ability to exercise control over their work-tasks and where, when and how these are performed. The concept of flexible work arrangement is commended in modern organisations, but despite this, it may involve some risks, since it has been argued that it can impair the individual's wellbeing (Allvin et. al, 2006).

Arbetsmiljöverket (2007), a nationwide study in Sweden, discovered that workers with little authority over decisions had an increased risk of being sick-listed for long periods (Theorell, 2007). The conclusion of the study performed by Arbetsmiljöverket revealed that lack of task control and authority over decisions increase the risks of suffering from physical- and psychological illness (Theorell, 2007). But other studies show different results. The freedom to exercise control over your work may be a stressor instead of a coping strategy, especially when the demands are high or diffuse (Mellner, et al 2014).

Flexible work arrangement may also increase the difficulties for the employees to regulate their work schedule in an optimal way to ensure that they do not get an overwhelming workload. One possible consequence of having a large workload is that the employees can end up even worse off for well-being than if the work arrangement are controlled and restricted by management (Mellner et. al 2014). The demand for a higher degree of flexible work arrangement is a result of changes in society through globalisation, increased competition between companies, and a development in information technology. These changes have made society somewhat boundless, (Chandra, 2012).

One reason accounting for the movement of society towards becoming increasingly boundless is that the boundaries between work life and private life have been blurred. This increases the individual's possibilities to work from a distance, for instance work from home. This new, boundless way to work is characterised by a more individualised approach regarding work arrangement (Allvin et. al 2006). This means that the capacity for the

individual to exercise influence over their specific work situation and alter the work arrangement increases. It also suggests that the individual has a larger amount of personal responsibility regarding the planning and execution of work tasks (Mellner et. al 2014).

Flexible work arrangements effects on employees' well-being is quite ambiguous. Some studies find a positive relationship between flexible work arrangements and well-being (e.g., Anderson, et al 2002). However, this is not the case in all studies. Epstein & Kalleberg (2004) has shown a negative relationship of flexible work arrangement on employees' well-being. The reason why I wanted to investigate the correlation between flexible work arrangement and stress levels is that modern organisations today seem to have a common interest in flexible work arrangements, judging from the fact that the demand for flexible work arrangement is constantly increasing, and another reason is that it is considered mainly positive for both employers and employees to adapt to these flexible structures of work arrangement (Theorell, 2003). The well-being of employees is also something that I find appealing to investigate, hence my interest in investigating if there is a correlation between stress levels and flexible work arrangements.

Social Work Environment

Organisational communication is paramount for working relationships to thrive in any organisation. Through social networking, employees get the opportunity to interact and share positive ideas on the job. Employees get to know each other more, knowing their strengths and weaknesses which can help in their collaboration on the job and their performance in the end (Taiwo, 2010). Also, involving employees as well as recognising their efforts on how

well or bad a job was done influence the psychological behaviours they exhibit on the job when given another opportunity.

Human relations, reporting relationships, interpersonal relationships and the chain of command in organisations also present certain conditions that directly influence the participation and performance of employees in an organisation. Most often than not, the kind of relations in an organisation is defined by the culture and climate adopted and follows its preceding activities in attaining their goals (Roper & Juneja, 2008). Just like in personnel management, where employers relatively disregarded the wellbeing of employees in getting work done, employees under such conditions exhibited certain unpleasant behaviours in executing their tasks.

In as much as dealing with individuals proves to be difficult a task, creating an enabling environment as an employer or organisation can help bring on board diverse background to certain tasks and ways of getting things done while creating excellent relations among employees on the job.

Concept of Employee Engagement

The term engagement in human resource management has been used interchangeably to mean: employee, work, personal, or job engagement (Welch, 2011). Employee engagement has been differently defined by different researchers. For example, Ajibola, Mukulu, & Simiyu (2019) refers to it as, employees that are attracted, inspired, committed, and fascinated with their job. These employees, according to Ajibola, Mukulu & Simiyu (2019), are concerned about the organisation's future and are willing to put out energies to ensure its growth. It is the attitudinal commitment of an employee to his or her work and, organisation, the willingness to work in the best

interest of the organisation, and the ability to make discretionary attempts to achieve organisational goals and objectives (Sundaray, 2011).

Harter & Schmidt (2008) defined it as the satisfaction, contribution, and enthusiasm an individual put in his/her job. Bakker (2011) posits that engagement in the work environment among workers and business pioneers is central to the accomplishment of a business. The employee engagement concept is expressed by Scheufeli and Bakker (2008) as a mental state where workers feel a personal stake in the prosperity of the organisation and work exclusively to meet the organisational targets.

A worker in an organisation could be engaged, not engaged, or disengaged (Chandani, et al, 2016). Engaged workers are the ones who strive for the goals of the organisation with zeal. A non-engaged worker is one seen as working without zeal and commitment to the goal of the organisation. Disengaged workers are the ones who are not happy with their jobs and acts out of their unhappiness. Kahn (1990) asserts a three-dimensional construct where employees can be physically, emotionally (affectively), and cognitively engaged. Accordingly, Kahn describes cognitive engagement as employees in the organisation who are reasonably conscious of their role and responsibility; emotional (affective) engagement as those emotionally connected to others and physically engagement as those employees who physically express their engagement, such as, performing extra-role.

Later, Macey and Schneider (2008) conceptualised a model that suggests a more comprehensive articulation of the construct, employee engagement. Their model described engagement as a repackaging of other constructs, that cannot individually accommodate the complexity of

engagement, in other words, an “aggregate multi-dimensional construct”. Their model comprises, behavioural engagement, trait engagement (comprising, dispositional personal features), and psychological state engagement (i.e. affective satisfaction, commitment, and involvement). This model is a departure from previous models, for example, Macey and Schneider combines affective and cognitive dimensions of engagement into a psychological state engagement.

Theoretically, Kahn (1990) argues that, synergistic effects of the various engagement are more beneficiary, however, it is possible to have one engaged on one dimension (affective or cognitive) and not the other. Previous research had pointed out some level of ambiguity in the affective and cognitive engagement. For example, affective arguably being the emotional manifestations of cognitions. Despite this seeming fusion, researchers are interested in distinguishing the scope of the different dimensions of engagement as well as defining the existence of a directional sequence. Hence, the need to divorce these aspects of engagement. Cognitive engagement for example has been hypothesized as an antecedent of affective engagement, which could also mean that different antecedents act as diverse triggers for cognitive and affective engagements (Harter & Schmidt, 2008).

Concept of Organisational Justice

Organisational justice refers to the perceived fairness of the exchanges taking place in an organisation, be they social or economic and, involving the individual, in his or her relations with superiors, subordinates, peers; and the organisation as a social system (Beugre, 1998). The concept of organisational justice is based on Equity Theory which is extracted from the concept of

justice or fairness. Organisational justice is mainly defined as the employees' perceptions about the degree of fairness with which they are treated by organisational authorities (Whitman, Caleo, Carpenter, Horner, & Bernerth, 2012). Theoretically, three forms of organisational justice are widely mentioned in organisational research literature namely distributive, procedural and interactional justice (Karkoulian et al., 2016). First, distributive justice is defined as the degree to which organisational leaders may distribute promotions or financial rewards among employees.

It is primarily established on the pillars of Equity Theory (Adams, 1965). It relates to individuals' perceived fairness in an organisation. It is the anticipation of individuals about they receiving outcomes that based on their work-related efforts and organisational contributions (Rio-Lanza, Vazquez-Casielles, & Diaz-Martin, 2009). When assessing distributive justice, comparisons of inputs from employees (effort) and outcomes from organisation (Salary, appreciation, performance appraisal etc.) are used as evaluation base (Whitman et al., 2012). Secondly, perceived fairness of individuals about all the procedures used while making employees' related decisions (Lin & Hsieh, 2010; Thibaut & Walker, 1975) is known as perceived organisational justice. It relates to those procedures that managers opt for when distributing outcome and also reaction of employees towards the fairness of those particular procedures (Tyler, 1987).

Thirdly, interactional justice is known as the fairness of communication of decisions and organisational procedures (Bies & Moag, 1986; Gelens, Dries, Hofmans, & Pepermans, 2013). It focuses on fairness perception of employees related to communication and interpersonal treatment

that they receive from their organisation (Ambrose, 2002). It defines their perception of the fair treatment of organisational authorities regarding decisions within organisation (Palaiologos, Papazekos & Panayotopoulou, 2011).

Empirical Review

This section presents results of other studies conducted with respect to the objectives of this current study. Better physical workplace environment will boost the overall input of employee and ultimately their performance.

In a study by Nanzushi (2015), findings revealed that work environmental factors such as physical environment factors, reward, management / leadership style, training and development and work-life balance influenced employee performance. The study was aimed at investigating “the effect of workplace environment on employee performance in the mobile telecommunication firms in Nairobi City County”. Employees at Airtel Networks Kenya Limited, Safaricom Limited and Telkom Kenya Limited based at the headquarters served as target population for the study. The sample size included a total of 164 employees. Descriptive research design was adopted for the study. Stratified random sampling was used for the study.

Khan, Hawaz, Aleem, Hamed. (2012) investigated the impact of workplace environment and infrastructure on employees’ engagement from the education in Pakistan and concluded that incentives at the workplace had a positive impact on employees’ performance. Again, Hameed and Amjad (2013) in a survey of 31 bank branches showed that comfortable and ergonomic office design motivates the employees and increased their performance substantially. Furthermore, Aisha et al. (2013) in their study on

“Effects of Working Ability, Working Condition, Motivation and Incentive on Employees Multi-Dimensional Engagement” found that variables such as incentives, motivation and working conditions have a significant effect on employee engagement in an Indonesian university. It is evident from these studies that a good workplace environment plays a very vital towards increasing performance of employees in general.

Again, Femi (2014) conducted research on the impact of communications on workers’ engagement in selected organisations in Lagos State, Nigeria. The study examined the significant relationship between communication and workers’ engagement in some selected organisations in Lagos State, Nigeria. Data for the study were collected through a questionnaire with a sample population of 120 respondents. The result of the study revealed that a relationship exists between effective communication and workers’ engagement, productivity and commitment. The study recommended that managers will need to communicate with employees regularly to improve workers engagement and performance.

In addition to that, Ali et al (2015) studied the effect of physical environment comfort on employees’ engagement in office buildings in Malaysia. Three selected case studies were evaluated based on aspects of employees’ comfort, perceived health and absenteeism rate, by considering the elements of physical comfort that consist of room temperature, relative humidity and luminance level. Field studies were carried out using hygrometers and lux meters in measuring the said elements as well as post-occupancy evaluation, which involved 30 respondents for each case (total 90 respondents), to determine their perception of comfort and its effect on their

health and absenteeism rate. The study concluded that an uncomfortable environment in an office workplace leads to health-related issues as well as increasing the absenteeism rate. High levels of employee absenteeism led to decreased employee productivity, therefore affecting their work engagement.

Shonubi and Akintaro (2016) studied the impact of effective communication on employee engagement. The main objective of the paper was to look at the impact of effective communication on employee engagement. The discussion was based on a series of empirical studies of communication and employee engagement. The research findings no doubt have validated the synergies relationship between communication approach and efficient employee engagement. Also, Nwata et al (2016) conducted a study internal organisational communication and employee engagement in selected banks in Port Harcourt. The results showed a significant effect of the dimensions of internal organisational communication (downward communication and upward communication) on the measures of employee engagement (employee efficiency and employees' effectiveness). Based on the results, it is therefore concluded that internal organisational communication was strongly associated with an employee engagement.

Mengistu (2017) conducted a meta literature review on the effect of working conditions on employee engagement in Nigeria. The study was descriptive research, it also adopted a description-explanatory research design. A review of past studies shows that improved working conditions impacts positively on employee engagement. Similarly, occupational safety and healthy environment also contributed to the attainment of organisational goals. It was also found that health risk reduced, cost related to absenteeism and sick

days was brought to the barest minimum. Also, there was a positive correlation between the working condition and improved engagement as well as a competitive edge. The study focused on working conditions especially on convenience facilities provided in the workplace as one of the major elements that affects employee engagement.

Also, in a study by Ndayisaba (2017), he analysed the extent to which employees perceive their work environment as fulfilling their intrinsic, extrinsic, and social needs and their need to stay in the organisation. The study also analysed the impact of perception of workplace environments on employee engagement and turnover in the organisation, he concluded that if the employees are provided with enabling workplace environmental support, they will be highly satisfied and show a high level of commitment towards their organisation and hence low turnover rate.

Finally, with respect to the effect of internal communication, Atambo and Momanyi (2017) carried out a study on the effect of Effects of Internal Communication on employee engagement in South Nyanza Region, Kenya. The population under study was 256 employees who were currently working at the South Nyanza Region, but the researcher only targeted 30% of this since the number was large. The sampling technique was stratified random sampling to improve on precision and representativeness of the whole population. Data was collected using questionnaires which were availed to the sample population. The findings were summarized in tables and graphs. It was found that downward communication is appreciated by KPLC thus information is timely, enhancing performance. The research concluded that effective communication can enhance employee engagement.

Erkutlu (2012) examined whether organisational culture moderates the relationships between employee engagement and justice perceptions. 618 lecturers in ten universities were sampled for data collected. Results support the mediating role of organisational culture of the justice perceptions-OCB link. Also, Purang (2012) hypothesised that perceived organisational support (POS) mediates the relationship between organisational justice perceptions and affective commitment of employees. The study was conducted in a multi-national organisation using sample size was 71 employees. The findings showed that POS fully mediates the relationship between distributive justice and affective commitment as well as partially mediates the relationship between procedural justice and affective commitment.

Zhang (2015) examined the effect of organisational culture and organisational justice on employee satisfaction and organisational commitment. The study sampled 406 responses which were used in the analysis. SEM (Structure Equation Model) was used to examine the hypothesis. The findings of the study indicated both organisational culture and organisational justice had direct positive effect on employee satisfaction and organisational commitment. Ogwuche et al (2019) examined the influence of Organisational Culture and Justice on employee engagement. The study used cross section design and sampled 188 participants. The data collected was analysed using linear regression, mean and standard deviation. The results revealed a significant influence of organisational culture on employee engagement.

Maimunah and Nordahlia (2017) examined organisational factors of justice and culture leading to organisational identification in merger and

acquisition. Data were obtained from 302 respondents and analysed using Structural Equation Modelling procedures. The results revealed that interactional justice and four dimensions of organisational culture contribute significantly to organisational identification. Yavuz (2017) examined the effects of teachers' perception of organisational justice and culture on organisational commitment. The research sample comprised 445 teachers who were selected from the population according to the random sampling method. According to the results of the study, organisational culture and organisational justice affect teachers' affective commitment, continuance commitment and normative commitment to the organisation, respectively.

Bayasgalan and Gerelkhuu (2016) examined the impacts of organisational justice, organisational culture, knowledge management and employee engagement on job satisfaction among public officers. Data were collected from 213 participants. The results showed that effects of all factors such as organisational justice and culture, knowledge management and employee engagement had positive impacts on job satisfaction. Suhardi et al (2020) examined the effect of organisational culture, leader behaviours, job satisfaction, and justice on organisational commitment. The study sampled fifty-nine teachers as respondents for the study. The data were analysed statistically using path analysis. The results of the study showed that organisational culture has a positive direct effect on organisational commitment. The results of the study showed leader behaviours have a positive direct effect on organisational commitment. The results of the study showed job satisfaction has a positive direct effect on organisational

commitment. The results of the study showed that organisational justice has a positive direct effect on organisational commitment.

Yaseen et al (2015) examined the relationship between organisational culture, social influence and organisational citizenship behaviour with mediational effects of interactional justice. Data set of 550 respondents, employees representing middle and senior management belonging to banking industry was studied. Analysis was conducted by application of Structural Equation Model to explore the direct and indirect relationship among the constructs. The findings of the study suggest that interactional justice as a mediator act as a source for employees to have influence upon each other which might shape their perception about organisational processes.

Saboor et al (2018) investigated the moderating effect of organisational respect on the association between organisation justice perceptions and contextual performance. A sample of 385 nurses, dispensers and doctors were used. The results from the study, offered some valuable practical implications at organisational level. It was also noted that managers could boost employee engagement by promoting organisational respect and focusing on their fair interaction with subordinates and group members. The findings of Saboor, Rehman and Rehman (2018) were in line with Punnu and Chuah (2018) when they investigated the relationship among organisational justice, organisational commitment and turnover intention of Malaysian employees. Using a sample of 172 persons, collected from employees across organisations in the country, both procedural and distributive justice perceptions were significant contributors in explaining organisational commitment and turnover intention, thereby showing some degree of employee commitment.

The empirical study of Ali (2016) examined Effects of organisational Justice on employee engagement in the Health Sector of Pakistan. Data was collected from two hundred doctors of different public sector hospitals coupled with cross sectional analysis was performed. It was found that there was a significant relationship between the two factors. It also showed that organisational citizenship behaviour is affected directly and indirectly by the organisational justice factors like procedural justice, distributive justice and interactional justice. Varies and Naus, (2018) looked at the relationship between job stress and job satisfaction and whether organisational justice has a moderating effect on this relationship. Findings showed a negative relationship between job stress and job satisfaction. Next to that, organisational justice was defined and divided into distributive justice, procedural justice and interactional justice. Furthermore, it was found that organisational justice has a positive influence on job satisfaction, but the extent determined.

Similarly, Mardiyanti and Suharnomo (2018) examined the effect of distributive justice and procedural justice on employee engagement with organisational culture as a moderating variable. Ninety-six permanent employees were used as sample for the study. The findings showed that distributive and procedural justice positively affects employee engagement. Organisational culture was also found to be the moderator on the effect of procedural justice on employee engagement. However, the prediction that organisational culture could be the moderator on the effect of distributive justice on employee engagement was not supported. Mete and Sokmen (2019) looked at the effects of organisational justice and organisational commitment on job satisfaction and turnover intention in a sample of 235 academicians of a

foundation university. The study revealed that the levels of organisational commitment and job satisfaction of the academic staff could increase while the level of turnover intention may decrease when their perception on organisational justice increases.

Were and Orwa, (2016) established the relationship between perceptions of distributive justice and employee commitment in the health sector of non-governmental organisations in Kenya. Their study adopted descriptive and correlational research designs with a statistical sample of 195 employees responsible for key result areas in 17 health sector Non-Governmental Organisations. They also concluded that there was a significant relationship between perceptions of distributive justice and employee commitment in the health sector of non-governmental organisations in Kenya. Ledimo, 2015; Ibrahim & Perez, 2014 in a similar study in South Africa, found that there are nine underlying factors that contributed to the perceptions of organisational justice as strategic direction, distributive, procedural, interactional, informational, service delivery and innovation, diversity management, customer relations, ethical leadership and management. These finding were as a result of a study that sought to examine factors influencing employees' organisational justice perceptions in a South African government department with a sample of 289 participants.

Khan and Rashid (2015) sampled 324 academics in a private higher learning institution in a study on the mediating effect of organisational commitment in the organisation culture, leadership and organisational justice relationship with employee engagement. The study used confirmatory factor analysis and multiple regression to analyse data collected. The results of the

study revealed that organisation commitment was a mediating factor among organisation culture, leadership, organisation justice to influence employee engagement. Organisation culture, leadership and organisation justice was related to organisation commitment.

Sujonoa et al (2019) sampled 140 participants in a study on vitality of work involvement in mediating the effect of organisational justice on employee engagement. The study used quantitative and data processing as well as path analysis. Results of the study showed that organisational justice had a positive significant direct effect on employee engagement. The study's findings indicated that organisational justice if well applied can be contribute positively to increase employee engagement. The finding of the study implied that employees who are treated fairly will feel happy, so they can stimulate themselves and get actively involved in work.

Edeh and Ugwu, (2019) investigated the relationship between Organisational justice and employee commitment of private secondary school teachers in Nigeria using survey design. A sample of twenty secondary schools selected randomly and 480 teachers were surveyed. It was found that organisational justice had positive association with employee commitment. It was also concluded that measures in terms of distributive justice, procedural justice and interactional justice enhances employee commitment in selected private secondary schools in Nigeria.

Tafamel and Akrawah (2019) examined the role of organisational justice on employee commitment. The study sampled 70 non-academic staff of the University of Benin. Ordinary multiple regression was used to analyse data collected. The study found that distributive justice and procedural justice has a

positive and significant relationship with employee commitment. Imamoglu et al (2019) in a study examined the effect of organisational justice and organisational commitment on knowledge sharing and employee engagement. The study sampled 211 responses and used confirmatory factor analysis and structural equation modelling to test hypothesis. Findings of the study suggested that organisational justice is a determinant of organisational commitment. The study concluded that organisational justice affects organisational commitment, knowledge sharing and performance.

Lee (2019) examined the mediating role of distributive and procedural justice in linking leader-member exchange and job satisfaction, organisational commitment, and turnover intentions in the hospitality industry. The model was evaluated using structural equation modelling (SEM). The results indicated that distributive justice had a direct positive influence on job satisfaction and was negatively related to turnover intentions. Distributive justice was also found to have a strong impact on procedural justice. Procedural justice had a direct positive influence on job satisfaction. However, procedural justice was negatively related to organisational commitment, and was positively associated with turnover intentions. Thus, distributive justice played a more vital role in employees' work-related outcomes than did procedural justice.

Akran et al (2022) investigated the impact of organisational justice on the employee engagement of employees working in Chinese telecommunication sector, while analysing the mediating role of knowledge sharing between the independent and dependent variables of this study. Using

the structural equation modelling, they found out that there is significant and positive effect of organisational justice on the employee engagement.

Lessons Learnt and Issues Arising from the Review of Empirical Studies

Most of the studies were carried out in Asia and Europe raising questions regarding the applicability of their findings to developing African economies such as Ghana. In line with that, the findings of the studies vary according to sector and context. The dominant study design employed was the survey method, implemented using self-administered questionnaires. The reason cited was to arrive at conclusions applicable to fairly representative proportions of the population involved in each case. Workplace environment measures were mainly based on employees' self-assessment of their work environment. The role of organisational justice dimensions has not been fully assessed, even though support for employee engagement differs from resource supply indicating the need for further research on the concept. The review also indicated that cross-sectional and quantitative designs was mainly used in the study, with simple random sampling.

Conceptual Framework

The conceptual framework is a diagrammatic presentation of how variables in a given study are related. The synthetisation of various connected constituents and variables which help in solving a real-world problem is what is referred to as conceptual framework (Imenda, 2014). It provides at a glance, a pictorial and diagrammatic flow of how the various aspects of a research are connected to provide readers with a sense of how the research problem was conceived.

The conceptual framework of this study is partly based on the pioneering work of Ricard et al (2017) and Lewis et al (2018) on workplace environment; employee's engagement based on Scott and Bruce (1994) and organisational justice by Janssen (2018). The study examines how organisational justice, conceptualised as the employees' perceptions about the degree of fairness with which they are treated by organisational authorities in terms of distributive, interactional and procedural justice for employee engagement, mediates the relationship between workplace environment and employees' engagement in the University of Cape Coast. The framework is shown in figure 2. The indicators for workplace environment include; physical work environment (PWE1-PWE5), psychological work environment (PSE1-PSE5), workplace flexibility (WPF1-WPF5) and social work environment (SWE1-SWE5). Organisational justice and employee engagement were operationalised in a unidimensional variable as DJ1-DJ4, IJ1-IJ4 and PJ1-PJ5 for organisational justice and BE1-BE5, AE1-AE5 and CE1-CE5 for employee engagement.

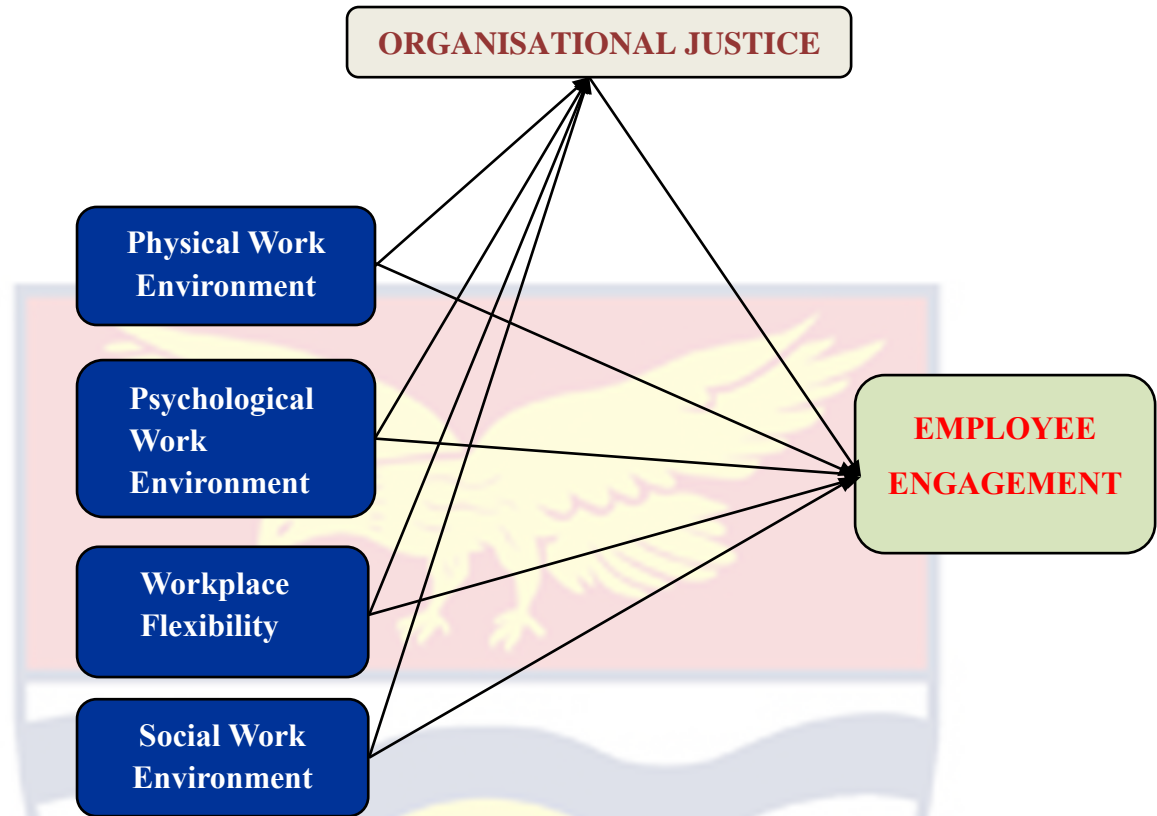


Figure 1: Conceptual Framework

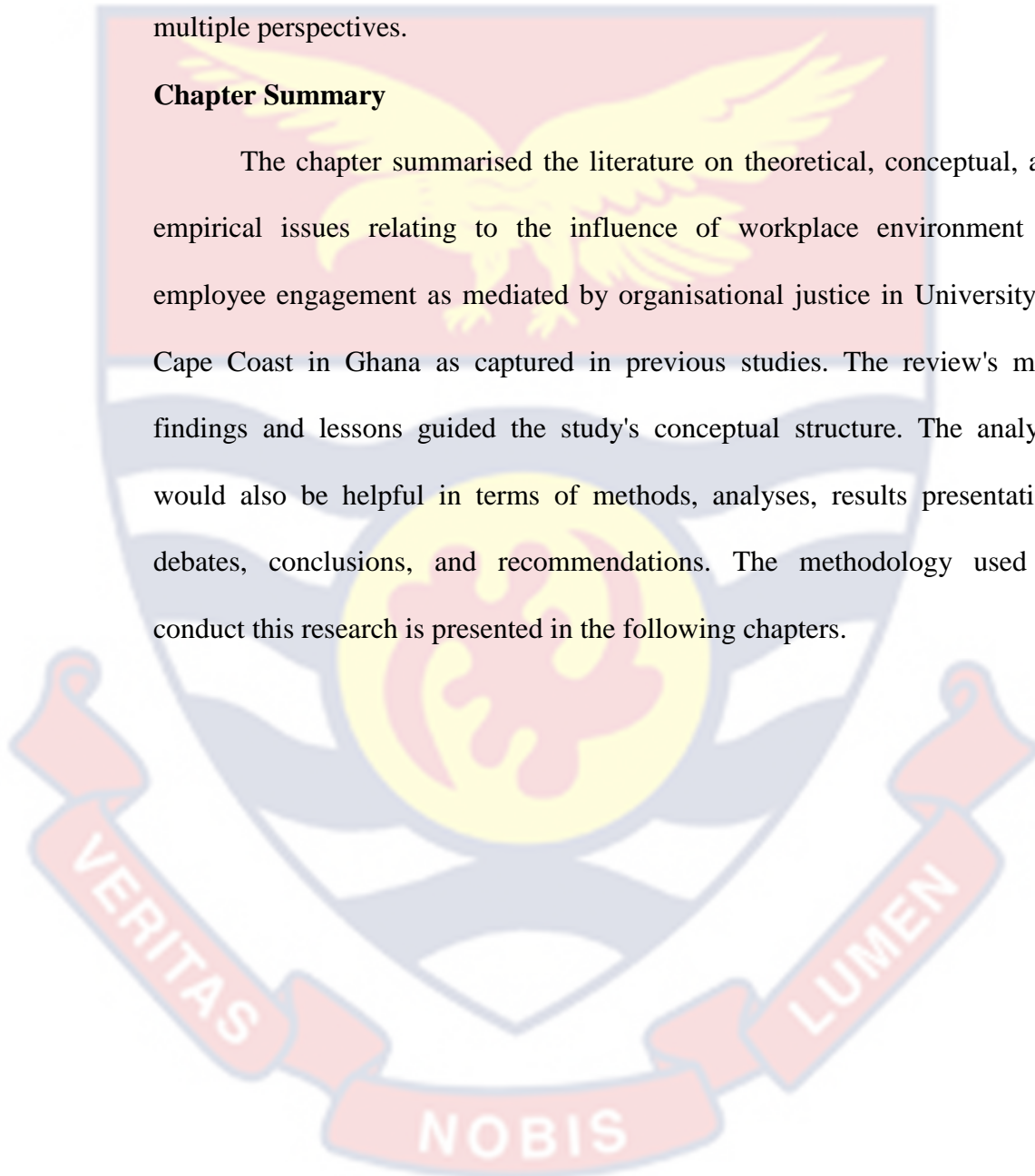
Source: Author's Construct (2022)

The study proposes that workplace environment has both a direct and indirect positive influence on employee engagement and a direct positive influence on organisational justice. The study also proposes that the organisational justice has a positive influence on employee environment based on the assertion of prior scholars. Employee engagement is measured as a unidimensional variable in this study, based on the work of other studies (Scott & Bruce, 1994; Naguib & Naem, 2018). The resource supply dimension of organisational justice as proposed by Scott and Bruce (2004) was used in this study, due to the fact that support for workplace environment may only influence employee engagement once the need for some threshold level of resources is met. The four theoretical dimensions of workplace environment by Ricard et al (2017) and Lewis et al (2018) were adopted to examine the

influence on organisational justice and employee engagement from multiple perspectives. The unidimensional measurement of organisational justice by Janssen (2018) were adopted to examine the mediating effect on the relationship between workplace environment and employee engagement from multiple perspectives.

Chapter Summary

The chapter summarised the literature on theoretical, conceptual, and empirical issues relating to the influence of workplace environment on employee engagement as mediated by organisational justice in University of Cape Coast in Ghana as captured in previous studies. The review's main findings and lessons guided the study's conceptual structure. The analysis would also be helpful in terms of methods, analyses, results presentation, debates, conclusions, and recommendations. The methodology used to conduct this research is presented in the following chapters.



CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methodology used to carry out this study. Research methodology articulates how the researcher conducts a study and the logic behind each method used. The rationale is to help the researcher to solve the research problem systematically.

Research Paradigm

Every researcher is guided through the research procedure by certain beliefs, values and a view of the world (Adjei, 2015). According to Guba (1990), this is mostly referred to as paradigms or philosophical assumptions which precede the commencement of a study. Saunders et al (2016) add that the term research philosophy refers to a system of beliefs and assumptions about the development of knowledge. The types of beliefs held by individual researchers based on these factors will often lead to embracing a strong qualitative, quantitative, or mixed-methods approach in their research (Creswell & Creswell, 2018). Saunders et al (2016) identified five major philosophies that have shaped social science research over the years: positivism, critical realism, interpretivism, postmodernism and pragmatism.

This study adopts the positivist approach. According to Saunders et al (2016), positivism relates to the philosophical system that embraces issues that can be scientifically verified and hence provides a basis for generalisation. This means that positivists focus on procedures that lead to the generation of facts uninfluenced by human interpretation. It is based on the use of existing theory to develop hypotheses. These hypotheses would be tested and

confirmed, in whole or part, or refuted, leading to the further development of theory which then may be tested by further research (Creswell, 2009; Saunders et al, 2016). According to Saunders et al. (2016), and Sekaran and Bougie (2016), positivism give room for objective reality and has the goal of universal truth that deals with human practices in the field of management sciences. It is an appropriate guide for this study given that based on the theories of human capital and social exchange, hypotheses will be tested and relationships established.

Research Approach

According to Creswell and Creswell (2016), there are three approaches to research; (a) qualitative, (b) quantitative, and (c) mixed methods. Saunders et al (2016) provide three significant differences between quantitative and qualitative research methods. The first difference advanced by the authors is that the quantitative research method permits the researcher to isolate and define variables and link them together to frame research hypotheses. However, this is not the case with respect to the qualitative research method. The next difference asserted by the authors is that the quantitative research method allows for objectivity with respect to the processes involved in the data collection and analysis. Contrarily, in the qualitative research method, subjectivity is often introduced during data collection procedures and analysis. Finally, while the quantitative research method allows for the use of larger samples and the generalisation of the sample results to the entire population, the purpose of the qualitative research method is not for the generalisation of the sample results to the entire population.

This study, therefore, employed the quantitative research approach based on the nature of the study purpose under consideration, specific objectives, hypotheses and the nature of the primary data to be collected and analysed. Creswell (2014) asserted that quantitative approach deals with explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics). Furthermore, the quantitative research method would grant the researcher an opportunity to generalise the results of the sample to the population from which the sample was collected.

Research Design

Wyk (2010) explains that “research design is the overall plan for connecting the conceptual research problems to the pertinent empirical research. According to Creswell and Creswell (2018), there are three major forms of design for quantitative studies; experimental (scientific experiments), non-experimental (such as surveys) and longitudinal designs. The nature of this study is non-experimental since it allows for comparison of relationships between variables. In experimental research strategy, one of the major shortcomings is the manipulation of the variables (Creswell, 2014; Sekaran & Bougie, 2016). Correlational design is a form of non-experimental research design in which investigators use the correlational statistic to describe and measure the degree of association (or relationship) between two or more variables or sets of scores (Creswell, 2012). These designs have been elaborated into more complex relationships among variables found in techniques of structural equation modelling, hierarchical linear modelling, and logistic regression (Creswell & Creswell, 2016).

In line with the discussion, the correlational design was adopted for this study. The cross-sectional survey time horizon strategy was employed for the current study. Furthermore, Neuman (2014) and Saunders et al. (2016) asserted that a cross-sectional survey involves the collection of data on many units during the same period in order to collect qualitative or quantitative data related to variables, in an effort to determine associations between the variables after the data have been analysed.

Study Area

This section presents brief descriptions of the institution selected for the study. The aim is to situate the study into the operations of the selected public universities in Ghana. The University of Cape Coast (UCC) was purposively selected and studied. Affiliation and religious background of this university was held constant, that is, selection was not based on religious orientation or affiliation with other institutions; the major variable of concern is sector: either public or private. Moreover, for inclusion, a university should have been in existence for at least 'five (5) years' as an accredited University/University College in Ghana.

This is because the study is about workplace environment and employee engagement, and so it is assumed that an organisation should have a history and a people who can be said to be knowledgeable insiders, to relay information about the workplace environment and employee engagement with the role of organisational justice (Cameron & Ettington, 2015; Schein, 2016). Finally, one criterion is the willingness of the university to participate in the study. This is because it is possible for a university to have all the above-mentioned attributes but may not have the interest to take part in the study.

Therefore, following informed consent, UCC willing to participate gave the go-ahead for this study to be carried out using the staff. Below includes a brief history, mandate, organisation of the institutions, and academic programmes offered in the University of Cape Coast.

The University of Cape Coast (UCC) is the study area for this study. The UCC was established in 1962 and was officially inaugurated by President Osaagyefo Dr. Kwame Nkrumah in December 1962 out of a dire need for highly qualified and skilled manpower in education and was affiliated to the University of Ghana. It was established to train graduate teachers for second cycle institutions such as teacher training colleges and technical institutions, a mission that the two existing universities were unequipped to fulfil. On October 1, 1971, the College attained the status of a full and independent University, with the authority to confer its own degrees, diplomas and certificates by an Act of Parliament - The University of Cape Coast Act, 1971 [Act 390] and subsequently the University of Cape Coast Law, 1992 [PNDC Law 278]. Since its establishment, the university has added to its functions the training of education planners, administrators, agriculturalists, and health care professionals.

The University of Cape Coast today, organized into six colleges, namely Agriculture and Natural Sciences, Distance Education, Education Studies, Humanities, and Legal Studies, Health and Allied Sciences, and School of Graduate Studies and Research. Each college has different schools and departments under them. The University Council is the executive body of the university's governance system. It has overall responsibility for the administration of the University and the management of its resources. The

Council superintends relations between the University and outside bodies on matters. The Council in carrying out its duties is responsible for the appointment or nomination of certain members of various committees.

UCC has 12 directorates that perform functions to support the University. The administrative and support functions of the University are grouped into the following Directorates; Academic Planning and Quality Assurance, Finance, Information and Communication Technology Services, Internal Audit, Procurement, Physical Development and Estate Management, Research, Innovation and Consultancy, and University Health Services. All these directorates are managed by administrators, some of who are females. The vision of the University is to have a university that is strongly positioned, with worldwide acclaim. Its mission is to provide a quality education through the provision of comprehensive, liberal and professional programmes that challenge learners to be creative, innovative and morally responsible citizens.

Study Population

According to Leedy and Ormrod, (2010) the population of a study can be seen as the target group about which the researcher is interested in gaining information and drawing conclusions. This study was carried out in the University of Cape Coast. The population of the study was all Senior Staff. The target population, due to time and cost considerations, was the administrative senior staff category. Administrative senior staff includes chief administrative assistants, principal administrative assistants, senior administrative assistants and administrative assistants. Administrative senior staff work as administrators in various departments, sections and units across the University.

The inclusion rule was that individual participants should have spent at least 2 years in the University on the basis that in some instances, workplace environment and employee engagement can be said to be a reflection of society (Hofstede, 2017) and historical events (Cameron & Ettington, 2015).

This at least ensures that the participants have some knowledge of what their institutions are about, in terms of the mission and vision, and operations of the entire institution. What this means is that, institutions of higher learning and the people within should have created some familiarity in the course of time, to have been selected for the study, making them knowledgeable insiders enough to provide responses to questions in the course of data collection.

The targeted individuals came from administrative/ non-teaching staff. It is important to mention that assessing the influence of the workplace environment of an organisation on employee engagement through the mediating role of organisational justice can be done in so many ways. To establish some bases that success in employee engagement through an effective organisational justice could be dependent so much on the support that comes from various stakeholders which the stakeholder theory has found favour (Peltokorpi, Alho, Kujala, Aitamurto, Parvinen, 2017; Trader-Leigh, 2018), hence the choice to engage only the administrative staff in this study as the key stakeholders of the University.

What constitutes 'stakeholder' is relative, but in an innovation project, a stakeholder could be seen as "any group or individual who can affect or is affected by the implementation of a University's objectives" (Freeman, 1984, as cited in Peltokorpi et al., 2017, p.419). Therefore, the current study draws on Freeman's (2015) and Peltokorpi et al.'s (2017) conception, and considers

the key stakeholders in university education as important in both the assessment of readiness for workplace environment, and successful employee engagement through organisational justice. Moreover, Savage, Nix, Whitehead, and Blair (2019) have it that within organisational contexts, especially where the stakeholders involved are active, knowledgeable and interdependent, it is important to observe practical stakeholder relationship management. This is a reflection of what the case is in university environment, especially when it has to do with innovative initiatives in these knowledge generating institutions.

For this study therefore, one (1) stakeholder, namely administrative senior staff, were identified and sampled for the study. According to the Directorate of Human Resource of the University, there are a total of four hundred and seventy-eight (478) administrative senior staff in the University. Made up of both staff paid from internally generated funds and by the government of Ghana.

Sample and Sampling Procedure

According to Malhotra, Birks and Wills (2013) sampling is the process of selecting a representative few or unit from a larger group or population, which is used as a basis of estimating certain characteristics or elements about the group or population. The study concentrated on administrative senior staff in all Departments, Sections and Units in the University. Respondents out of the total population of 478 were selected to serve as the sample size. The simple random sampling technique was employed for the study. The simple random sampling technique was employed for this study because the study seeks to examine the effect of one variable on the other for the purpose of

generalising the results for the administrative senior staff. To determine the exact sample size, the Krejcie and Morgan (1970) as cited in Delice (2010) sample size determination table was used. A sample size of two hundred and fourteen (214) administrative senior staff was selected from the target population of four hundred and seventy-eight (478) administrative senior staff for the study.

According to the Directorate of Human Resource of the University, there are hundred (100) Administrative Assistants, two hundred and twenty-seven (227) Senior Administrative Assistants, one hundred and thirty-two (132) Principal Administrative Assistants and nineteen (19) Chief Administrative Assistants. In order to get a fair representation of each category of staff in the sample size of two hundred and fourteen (214), the number of each category of staff was divided by the total number of the target population (478) and was multiplied by the sample size (214). After that, the lottery method of the simple random sampling technique was used to select respondents from each category of staff. Therefore, 45 administrative assistants, 101 senior administrative assistants, 59 principal administrative assistants and 9 chief administrative assistants were randomly selected to sum up to the sample size of 214 respondents.

Measurement of Variables

The variables used in this study were measured relying on previous empirical literature in areas of workplace environment and employee engagement. This allowed for the design of an instrument based on validated scales. Workplace environment in this study were measured using various sources. The concept of workplace environment was adopted from Ricard et

al. (2017) and Lewis et al (2018), however the measures of the individual workplace environment were adopted from scales with confirmed reliability. This was done in conformance with studies conducted in the area of workplace environment (Contreras et al, 2017; Li et al, 2019). The indicators for workplace environment include; physical work environment (PEW 1-PEW 5), psychological work environment (PSE 1-PSE 5), workplace flexibility (WPE 1-WPE 5) and social work environment (SWE 1-SWE 4).

Organisational justice (OJ) was operationalised in the perspectives of the employee. Whiles the indicators of employee engagement (EE) was measured in a unidimensional method. Organisational justice and employee engagement were also measured in terms of employees' perception. This will guard against biases related to supervisor's and another colleagues' assessment of employee engagement (Radaelli et al., 2014; Chen et al., 2016). The scale is made up of items that assess the degree to which respondents believed resources were adequate for accomplishing the task of engagement. The scales adopted indicates whether there is adequate time, people, and funds to support developing and implementing creative ideas in the organisation.

Data Collection Instrument

A self-administered questionnaire was the instrument used in collecting for this study. Sekaran and Bougie (2016) postulated that greater uniformity, consistency and objectivity are guaranteed when a questionnaire is used for data collection. In addition, privacy and convenience of respondents can be accomplished during questionnaire completion, thereby ensuring greater anonymity (Neelankavil, 2015). Close-ended questions were used to elicit responses needed to answer the research questions and achieve the

objectives set for this study. The closed-ended questions require the respondent to choose from among a given set of responses and require the respondent to examine each possible response independent of the other choice. The use of a self-administered questionnaire is justified since based on the busy nature of the respondents; they could best provide responses in a non-supervised way.

The proposed questionnaire for the study comprised four (4) sections – A, B, C and D harbouring 55 items. Section A was used to collect demographic information of the respondents, as such variables were measured in a categorical manner. Section B, C and D were used to capture information on workplace environment, organisational justice and employee engagement respectively. All items in section B, C and D were measured on a seven-point Likert-like scale, with one indicating least level of agreement with the statements and seven indicating highest levels of agreement. The Likert-scale facilitates the measuring of attitudes of respondents through the combination of scores of those respondents on different items into a single index (Likert, 1932). Likert scales are scales, generally, used in measuring people's attitudes, opinions and beliefs (Yates, 2004).

Pre-Testing

Zikmund (2012) defines the pre-testing process as “a collective term for any small-scale exploratory research technique that uses sampling but does not apply rigorous standards”. Pallant (2016) posits that pre-tests are required ahead of the main survey. This process assists in ensuring that instructions, questions and scale items are clear. They further help potential respondents to comprehend the questions and respond appropriately. Based on the approval

of the questionnaire by the department, the study engaged in pilot testing on twenty-five (25) staff of the University of Mines and Technology (UMaT). This sample size was deemed appropriate as it conforms to Saunders et al.'s (2016) minimum criteria of 10 for pilot studies by students. The only complaint that emanated from the pilot study was the length of the questionnaire's items. Based on this, the statements were summarised and preamble introduced to encourage answering.

Validity and Reliability

In order to ensure content validity of the instrument, the study ensured proper definition of measuring items, scale scrutiny by experts and scale pre-testing. These were in line with the principles of McDaniel and Gates (1996). Reliability and validity are two key components to be considered when evaluating a particular instrument. The level of the reliability of an instrument is measured by Cronbach's Alpha value (Saunders & Lewis, 2012). As posited by Pallant (2016), Cronbach's alpha coefficient for variables is generated to validate the reliability of the instrument. Pallant (ibid) also indicates that scales with a Cronbach's alpha coefficient of 0.70 and above are considered reliable. However, studies such as Boohene, Agyapong and Asomaning (2012) and Mahmoud (2010) support coefficient of 0.5. The results of the pre-test were used to assess the reliability of the instrument. The result is presented in Table 1.

Table 1: Questionnaire items and their reliability coefficients

Variable	Questionnaire Items	Sample	Cronbach's Alpha
Physical Work Environment	5	25	0.804
Psychological Work Environment	5	25	0.776
Workplace Flexibility	5	25	0.604
Social Work Engagement	5	25	0.702
Organisational Justice	12	25	0.908
Employee Engagement	15	25	0.800

Source: Field survey (2022)

Based on the criteria of Pallant (2016) and Boohene et al (2012), all items showed a high level of reliability.

Data Collection Procedure

According to Sekaran and Bougie (2016), there are different ways by which data can be collected through a questionnaire. The authors indicated that the method could be through the internet, post and hand delivery and collection of questionnaires. For this study, the hand delivery and collection of the questionnaire method was employed. This method was employed because of the difficulty in getting most of the respondents to respond to a questionnaire through the internet or post for this type of study in the country. The method chosen allowed the researcher to visit the employees at the University of Cape Coast and hand-delivered the questionnaire to the respondents. Also, the hand delivery and collection technique of data collection also helped the researcher to inquire from the respondents the time

they will use to complete the questionnaire and the convenient time for the researcher to collect the questionnaire.

Furthermore, the collection of data took place in the second quarter of 2021. The premises of the respondents were visited during the working hours.

Introductory letter was obtained and presented prior to administering the questionnaires were administered to the staff based on the permission of the units and departmental heads. Even though self-administered surveys come with some disadvantages, they were minimised where possible and did not outweigh the benefits provided by high response rates in a short period of time.

Data Processing and Analysis

The statistical tools employed for this study were Statistical Package for Services Solution (SPSS) version 26 and SmartPLS version 3. The SPSS was employed for descriptive analysis and the Smart PLS was employed for structural equation modelling based on the hypotheses of this study. The descriptive statistics (frequencies and percentages) were employed to determine the characteristics of the respondents. Each of the research objectives was analysed as follows:

1. Assess the influence of dimensions of workplace environment on employee engagement of staff at the University of Cape Coast. Structural equation modelling was used to analyse this objective.
2. Assess the effect of organisational justice on employee engagement of staff at the University of Cape Coast. This objective was analysed using structural equation modelling.

3. Examine the mediating role of organisational justice on workplace environment and employee engagement nexus among the staff at the University of Cape Coast. Structural equation modelling was used for this objective.

Structural Equation Modelling

Structural equation modelling (SEM) is a second-generation statistical technique that “enables researchers to incorporate unobservable variables measured indirectly by indicator variables. They also facilitate accounting for measurement error in observed variables” (Chin, 1998 as cited in Hair, Jr., Hult, Ringle & Sarstedt, 2014:3). Partial Least Squares-Structural Equation Modelling (PLS-SEM) uses available data to estimate the nexuses of the path in the model to minimise the residual variance of the endogenous constructs. SEM is made up of two key elements; measurement equations (by confirmatory factor analysis) and structural equations (by path analysis). Whereas confirmatory factor analysis models (CFA) are used for construct validation and scale refinement, path analysis is used to display the relationships that exist among study constructs.

PLS-SEM estimates path model nexuses that maximize the R^2 values of the endogenous constructs (Hair et al., 2014). It is also useful when dealing with complex models and small sample sizes (Hair et al., 2014; Rezaei & Ghodsi, 2014; Rezaei, 2015; Shahijan, Rezaei, Preece & Ismail, 2014). PLS-SEM is also more appropriate where theory is less developed (Ravand & Baghaei, 2016; Rönkkö & Evermann, 2013). According to Hair et al. (2014), there are two forms of measurement scale in structural equation modelling: Formative or Reflective. Whereas in formative measurement scale it is the

indicators that cause the constructs of the study, in a reflective measurement scale it is the constructs that cause indicators of the study. The current study employed reflective measurement scale because all the indicators were caused by the constructs.

Furthermore, Jeon (2015) has itemised a number of benefits SEM has over other models such as regression. These benefits are: Firstly, SEM uses “latent variables” which allows multiple indicators to capture constructs validly and reliably. Secondly, SEM makes the causal equation model between latent variables clearer as compared to regression. Thirdly, SEM allows one or more independent variables to be regressed on one or more dependent variable. Fourthly, In SEM, a researcher can show the direct effect, indirect effect, and total effect because several exogenous variables and endogenous variables can be estimated simultaneously. PLS is quite robust with regard to inadequacies like skewness, multicollinearity of indicators and misspecification of the structural model (Cassel et al, 1999). In SEM, confirmatory factor analysis, correlation analysis, and regression analysis can be conducted at one time in a model. In line with the benefits above associated with SEM, this study relied on PLS-SEM to test the various hypotheses.

Mediation Procedure in SEM

According to Hair, Hult, Ringle and Sarstedt (2017), a mediating effect is created when a third variable or construct intervenes between two other related constructs “Mediator variables absorb part of the relationship between an exogenous and an endogenous construct in the” Partial least squares path model. Thus, mediators reveal the "true" relationship between an exogenous and an endogenous construct. In this study, the mediating role of

organisational justice is tested on the relationship between workplace environment (exogenous) and employee engagement (endogenous). Hair et al. (2017) provides a systematic mediator analysis process in PLS-SEM, to solve the misapplication of Baron and Kenny's procedure in the PLS-SEM field (Nitzl, Roldan & Cepeda, 2016; Carrión, Nitzl & Roldán, 2017).

The mediation effect tested for in this study was based on the procedure developed by Nitzl et al. (2016) to test mediation effects on PLS-SEM. The mediation analyses begin with testing the indirect effect (through the mediator) to assess the significance. Nitzl et al (ibid) propose that it is not necessary to conduct separate tests for direct and indirect paths by applying PLS-SEM. A significant indirect effect is the only prerequisite for establishing a mediation effect. The significance of the direct effect determines the type of effect and or mediation. According to Hair et al (2017) the current mediation literature discusses two different types of mediation, full and partial mediation. Partial mediation can be subdivided into complementary and competitive partial mediation.

Carrión et al (2017) posit that a full mediation occurs when a direct effect is not significant, whereas the indirect effect is significant. Indicating that effect of the exogenous variable on the endogenous variable is completely transmitted with the help of the mediating variable. In a complementary partial mediation, the direct effect and indirect effect point in the same (positive or negative) direction (Baron & Kenny, 1986). In a competitive partial mediation, the direct effect *and* indirect effect point in a different direction (Zhao, Lynch & Chen, 2010). There is no mediation when the indirect effect is not significant.

Validity and Reliability of the Model

There are several criteria for assessing model structures. In general, a systematic application of the different criteria is carried out in a two-step process, (1) the assessment of the measurement model and (2) the assessment of the structural model.

1) Assessment of Measurement Models

Assessment of reflective measurement models includes composite reliability to evaluate internal consistency, individual indicator reliability, and average variance extracted (AVE) to evaluate convergent validity. In addition, the Fornell-Larcker criterion and cross loadings are used to assess discriminant validity (Hair et al, 2013).

Internal Consistency Reliability

It is a form of reliability used to judge the consistency of results across items on the same test. It determines whether the items measuring a construct are similar in their scores (i.e., if the correlations between the items are large) (Drolet & Morrison, 2001). The composite reliability is a more appropriate measure of internal consistency than the Cronbach's alpha (Rossiter, 2002). The composite reliability varies between 0 and 1, with higher values indicating higher levels of reliability. It is generally interpreted in the same way as Cronbach's alpha. Specifically, composite reliability values of 0.60 to 0.70 are acceptable in exploratory research, while in more advanced stages of research, values between 0.70 and 0.90 can be regarded as satisfactory (Nunally & Bernstein, 1994).

Convergent Validity

Convergent validity is the extent to which multiple items to measure the same concept agree (MacKinnon, 2008). Anderson and Gerbing (1988) stated that convergent validity is established if all factor loadings for the items measuring the same construct are statistically significant. According to Hair et al. (2016) convergent validity could be accessed through factor loadings and the average variance extracted (AVE). Hair, Ringle, and Sarstedt, (2011) point out that to establish convergent validity, factor loadings must be 0.70 and above. An AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more error remains in the items than the variance explained by the construct.

Discriminant Validity

Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards. Thus, establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model (MacKinnon, 2008). The Heterotrait - Monotrait Ratio (HTMT) is a means of determining the discriminant validity of a PLS-SEM model. According to Henseler, Ringle & Sarstedt (2015), a latent construct has discriminant validity when its HTMT ratio is below 0.850. The Fornell-Larcker criterion is also an approach to assessing discriminant validity. It compares the square root of the AVE values with the latent variable correlations (Fornell and Larcker, 1981). Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct. (Hair et al. 2013).

2) Assessment of the Structural Model

The first essential criterion for the assessment of the PLS-SEM is the coefficient of multiple determinations (R^2) for each endogenous construct. R-square (R^2) measures the explained variance of a latent variable relative to its total variance. Hair et al. (2014) advanced that a coefficient of determination (R^2) of 0.25, 0.5 and 0.75 are considered as weak, moderate and substantial respectively for structural models. The next step to assess the structural model comprises the evaluation of the regression coefficients between the validated latent variables. A regression coefficient magnitude indicates the strength of the relationship between two latent variables. Furthermore, regression coefficients should be significant at the 0.05 level, in order to determine the significance (Bradley & Tibshirani, 1993).

Finally, another assessment of the structural model involves the model's capability to predict. The predictive relevance of the structural model is assessed by the Stone-Geisser's Q^2 statistic (Stone, 1974). In the structural model, Q^2 values larger than zero for a certain reflective endogenous latent variable indicate the path model's predictive relevance for this particular construct. As a relative measure of predictive relevance, values of 0.02, 0.15, and 0.35 indicate that an exogenous construct has a small, medium, or large predictive relevance for a certain endogenous construct. (Hair et al, 2016). It is also imperative to measure the impact of individual endogenous variables on the exogenous variable. This is achieved by assessing the effect size (f^2). As posited by Cohen (1988), f^2 values of 0.02, 0.15, and 0.35, respectively, represent small, medium, and large effects of the exogenous latent variable.

Specifying the Structural and Measurement Model

The section specifies the structure of the model of this study. It indicates the exogenous and the endogenous variables with the various indicators. The structural model is specified in figure 3. There are four exogenous variables and four endogenous variables in this study. The exogenous variables are; physical work environment (PEW), psychological work environment (PSE), workplace flexibility (WPE) and social work environment (SWE). The endogenous are; organisational justice (OJ) for the mediating variable, and employee engagement (EE). The latent variable Physical work environment was measured by five indicators (PEW 1, PEW 2, PEW 3, PEW 4 and PEW 5). Again, Psychological work environment was measured by five indicators (PSE 1, PSE 2, PSE 3, PSE 4 and PSE 5). Workplace flexibility was also measured by five indicators (WPE 1, WPE 2, WPE 3, WPE 4 and WPE 5). Social work environment has five indicators (SWE 1, SWE 2, SWE 3, SWE 4 and SWE 5). The latent variable employee engagement is measured by five indicators (EE 1, EE 2, EE 3, EE 4 and EE 5). The mediating variable, organisational justice was measured by ten indicators (OJ 1, OJ 2, OJ 3, OJ 4, OJ 5, OJ 6, OJ 7, OJ 8, OJ 9 and OJ 10).

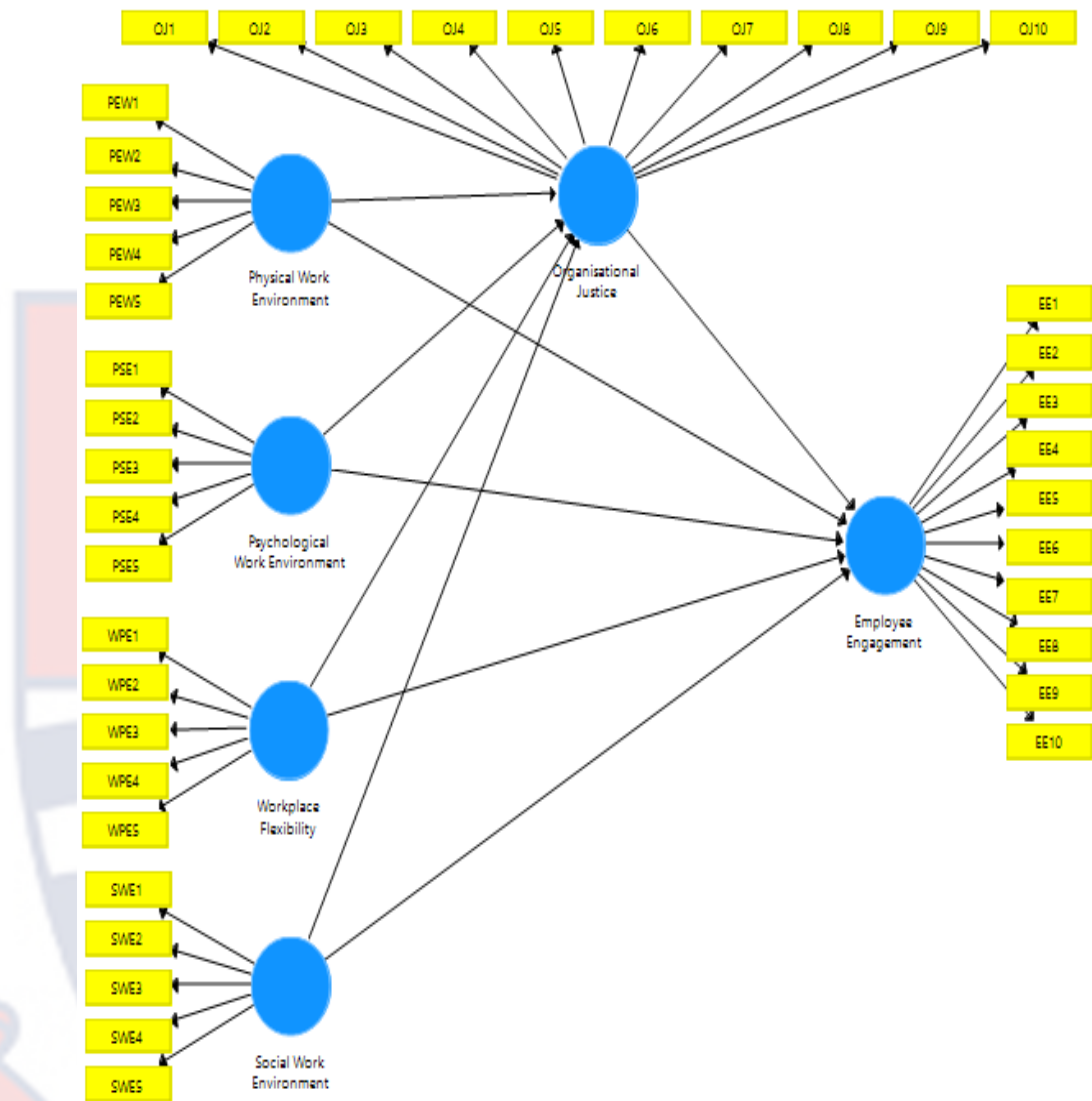


Figure 2: Structural model of the Constructs

Source: Smart PLS (2022)

There are 6 paths hypotheses in the model (figure 3). The study proposes a positive link between PEW and EE, PSE and EE, WPE and EE and SWE and EE. The study proposes a positive link between organisational justice (OJ) and EE. The study proposes a positive link between workplace environment (WE), organisational justice (OJ) and employee engagement (EE), hence creating an indirect effect between workplace environment and employee engagement through organisational justice.

Common Method Bias

Common method bias can occur due to self-report measures (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Common method bias is a biasing of results that are caused by a common method, such as a single survey (Favero & Bullock, 2015). Another possible cause of common method bias is the implicit social desirability associated with answering questions in a questionnaire in a particular way, again causing the indicators to share a certain amount of common variation (Kock & Lynn, 2012). To deal with common method bias, only previously tested scales were used (Alfes, Shantz, Truss & Soane, 2013).

Common method bias (CMB) can also be tested using Harman's single factor test (Podsakoff & Organ, 1986) and VIF scores (Kock & Lynn, 2012). Podsakoff and Organ (1986) suggested that a single factor would emerge from a factor analysis or one general factor would account for most of the covariance in the independent and criterion variables if CMB was a serious problem. All seven variables were entered into an exploratory factor analysis with a principal axis factoring analysis, extracting eleven factors, with factor 1 accounting for only 30.32 percent of the variance, the table is attached as Appendix C. The results indicated that no single factor emerged and no one general factor accounted for the majority of the covariance among the latent factors. Therefore, CMB was unlikely to be a serious issue in this study.

Ethical Consideration

As indicated by Saunders, Lewis and Thornhill (2007), any social researcher should seek permission from the respondents stating clearly their intentions and being guided by research ethics. The respondents were

therefore informed of anonymity and confidentiality. The researcher assured the respondents that their names would not be disclosed. As such, all information received from them (respondents) would be treated with the highest degree of confidentiality. In addition to this, the researcher also informed the respondents that they were free to cease to give any response if they so wish. Finally, the researcher did not withhold any information about the study's possible risks, discomfort or benefits or deliberately deceive study subjects on these matters.

Chapter Summary

This chapter discussed in details and in a systematic manner the methodology used for the study, and this includes the research setting, research design, the study population, sampling and sampling procedures adopted for the study, the instruments used, and procedures followed in the collection and analysis of data. The discussion has provided basis for the choice of the study's population and the sample of the study. In line with the purpose of the study, the chapter has described in details the instrument to be used for this study and the analysis to be conducted on each objective. The chapter provided data on the reliability of the instrument of measurement used in this study and provided for ethical consideration of the researcher. It enshrines that the anonymity of the respondents is protected and the results will be used for purely academic purposes.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

Introduction

The study was conducted to examine the influence of workplace environment on employee engagement: the mediating effect of organisational justice. The previous section provided information in respect of the research methods that were employed in gathering and analysing the data in respect of the specific research objectives. This section provides information in respect of findings and discussions made in respect of the specific research objectives. Similarly, SEM was used to analyse data to draw conclusions on the research objectives. A total of 214 questionnaires were issued and 209 returned, representing a response rate of 97.6%.

Background Information of Respondents

The first section of the questionnaire sought to obtain demographic information of the respondents. Information obtained included sex, age group, years of work experience and level of educational qualification. Table 2 presents the distribution of background information of respondents.

Table 2: Background Information of Respondents

Background Information	Frequency	Percentage (%)
Sex		
Male	96	46.0
Female	113	54.0
Total	209	100.0
Age Range		
21-25	37	18
26-30	4	2
31-35	82	39
36-40	49	23
41 and above	37	18
Total	209	100.0
Years Of Work Experience		
1-5	96	46.0
6-10	90	43.0
11-15	17	8.2
16-20	6	2.8
Total	209	100
Educational Level		
Diploma	37	17.7
Degree	100	47.8
Masters	72	34.5
Total	209	100.0

Source: Field survey (2022) N=209

Table 2 shows the sex distribution of the respondents. Out of the total sample of two hundred and nine (209) respondents, one hundred and thirteen (113) representing fifty-four percent (54%) were made up of female respondents and ninety-six (96) respondents representing forty-six percent (46%) were males. This indicates that the administrative senior staff at the University are female dominated. The study also examined the ages of

respondents. From Table 2, it could be noted that, out of the two hundred and nine (209) administrative senior staff that were sampled, eighty-two (82) respondents representing thirty nine percent (39%) were between the age ranges of 31-35 years while forty-nine (49) respondents representing twenty three percent (23%) were within the age range of 36 to 40 years.

Also, thirty-seven (37) respondents representing eighteen percent (18%) were between the age range of 21 and 25 years. Among the respondents those who were above forty-one (41) years were thirty-seven (37) administrative senior staff, representing eighteen percent (18%). The results imply that the University of Cape Coast was dominated by young adults who are aged between 26 and 40 years followed by prime-aged adults. The study further examined the years of respondents work experience. Table 2 again shows that out of the two hundred and nine (209) respondents, ninety-six (96) representing forty-six percent (46%) had worked with the University between 1 to 5 years, whereas ninety (90) respondents representing forty three percent (43%) had worked with the University between 6 to 10 years. Also, seventeen (17) respondents representing 8.2% had work between 11 to 15 years.

It is noted from the Table that the percentages of respondents work experience decreases with increasing years of length of service to the University. The implication is that majority (46%) of the respondents have worked with the University between 1 to 5 years. This category of staff tends to leave the institution during the early years of their appointment. This can be as a result of certain unmet expectations. Differences in the educational levels of respondents may influence their working environment and employee engagement with the mediating effect of organisational justice in the UCC.

Table 2 further indicates that, out of the total 209 respondents, 100 of them representing 47.8% held a first degree, while 72 respondents representing 34.5% held master's degree and 37 respondents representing 17.7 held diploma. It is therefore clear that the University's administrative senior staff workforce is dominated by first degree holders or higher qualification. This implies that, majority of administrative senior staff in the University possess the required qualification for the performance and engagement of their jobs as required of them.

The Findings of the Main Study Objectives

This section presents results and analysis based on the three key research objectives of this study. The Smart PLS was employed for structural equation modelling based on the hypotheses of this study and was used in analysing the data. The results and analysis are presented chronologically based on the stated objectives of this study.

Assessment of Measurement Models for the Study

This section focusses on the measurement models for the study. The section begins with the assessment of the indicator loadings. The measurement model assessments include indicator loadings, Internal consistency reliability (Composite reliability), Convergent validity (AVE-Average variance extracted) and Discriminant validity (Fornell-Lacker and HTMT). A consistent PLS algorithm was run to generate indicators for the assessment of the measurement model. The results are presented in the subsequent tables.

Assessing indicator loadings

Table 3 shows that some indicators have been dropped in comparison to indicators in figure 5. All indicators that loaded below the threshold of 0.6

as recommended by Hair, Risher, Sarstedt and Ringle (2019) were dropped to improve the reliability of the overall model. Out of a total of 40 indicators measuring the various latent variables, 12 indicators were dropped for failure to meet the indicator reliability criteria. Thus, 4 scales measuring the existence of physical work environment; 3 measuring psychological work environment; 3 measuring workplace flexibility and 3 scales measuring social work environment, 7 measuring the mediating variable which is the organisational justice and 8 of the scales measuring employee engagement. The indicator loadings of the items are shown in Table 3.

Table 3: Indicator loadings of Variables

	PWE	PSE	WPE	SWE	OJ	EE
PWE1	0.760					
PWE2	0.685					
PWE4	0.831					
PWE5	0.775					
PSE1		0.722				
PSE3		0.803				
PSE4		0.882				
WPE1			0.649			
WPE4			0.854			
WPE5			0.812			
SWE1				0.703		
SWE2				0.698		
SWE5				0.687		
OJ1					0.678	

OJ3	0.658
OJ4	0.615
OJ5	0.708
OJ7	0.658
OJ8	0.756
OJ9	0.691
EE1	0.776
EE3	0.693
EE4	0.720
EE5	0.786
EE6	0.645
EE7	0.758
EE8	0.750
EE9	0.804

Source: Field survey (2022)

From Table 3, the four indicators of physical work environment loaded above 0.6. The least was (0.685) and the highest (0.831), indicating that the retained indicators are reliable; psychological work environment (0.722 – 0.882); Workplace flexibility (0.649 – 0.854) and social work environment (0.687 – 0.703). The minimum indicator loading on organisational justice was (0.615) and the highest (0.756), and finally indicators under employee engagement loaded from 0.645-0.804. The indicators used to measure latent variables in this study are reliable, well above the threshold of 0.6.

Assessing Internal Consistency Reliability

In this study, the internal consistency reliability of the constructs was measured using the composite reliability. The composite reliability is a more appropriate measure of internal consistency than the Cronbach's alpha (Rossiter, 2002). The results in Table 4 indicates that all latent variables in this study are reliable, as they all loaded about the 0.7 threshold by (Bagozzi & Yi, 1988). Employee engagement had the highest score of composite reliability (0.908) this was followed by organisational justice (0.858). The results indicate that the model has internal consistency reliability. Table 4 also includes results on convergence validity.

Table 4: Validity and Reliability

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
PWE	0.762	0.775	0.848	0.584
PSE	0.728	0.761	0.846	0.648
WPE	0.860	0.720	0.818	0.603
SWE	0.886	0.898	0.738	0.584
OJ	0.807	0.810	0.858	0.582
EE	0.883	0.888	0.908	0.552

Source: Field survey (2022)

Assessing Convergent Validity

The average variance extracted was used in assessing convergent validity. Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2017). An AVE value of 0.50 or higher indicates that, on average, the construct

explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more variance remains in the error of the items than in the variance explained by the construct. The results from Table 4 indicates that all constructs have an AVE of more than 0.5. With the highest being psychological work environment and the least being employee engagement. This means that the constructs in this model are able to account for more than half of the variance in their indicators. As part of assessing the measurement model, discriminant validity was also assessed.

Assessing Discriminant Validity

Establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model (MacKinnon, 2008). In this study, both the Fornell-Lacker criterion and the HTMT were used to establish discriminant validity. The Fornell-Larcker criterion compares the square root of the AVE values with the latent variable correlations (Fornell & Larcker, 1981). Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct (Hair et al. 2013). The results from Table 5 indicates that the square root of each variable is well above their correlations with other constructs in the study. This means that each construct is unique and no two constructs capture the same phenomenon.

Table 5: Fornell-Lacker criterion

	PWE	PSE	WPE	SWE	OJ	EE
PWE	0.764					
PSE	0.483	0.805				
WPE	0.777	0.403	0.789			
SWE	0.578	0.435	0.671	0.696		
OJ	0.682	0.428	0.733	0.675	0.764	
EE	0.672	0.320	0.683	0.565	0.172	0.743

Bold values are the square root of each construct's AVE which is higher than their correlation with other constructs.

Source: Field survey (2022)

The Fornell-Larcker criterion performs very poorly, especially when indicator loadings of the constructs under consideration differ only slightly (e.g., all indicator loadings vary between 0.60 and 0.80). When indicator loadings vary more strongly, the Fornell-Larcker criterion's performance in detecting discriminant validity issues improves but it is still rather poor in assessing overall discriminant validity (Voorhees, Brady, Calantone, & Ramirez, 2016). As a remedy, Henseler, Ringle and Sarstedt (2015) propose assessing the Heterotrait Monotrait ratio (HTMT) of the correlations. According to Henseler et al (ibid), a latent construct has discriminant validity when its HTMT ratio is below 0.850. The results presented in Table 6 show HTMT values well below 0.850.

Table 6: Heterotrait - Monotrait Ratio (HTMT)

	PWE	PSE	WPE	SWE	OJ	EE
PWE						
PSE	0.620					
WPE	0.116	0.525				
SWE	0.547	0.705	0.647			
OJ	0.437	0.548	0.162	0.074		
EE	0.809	0.385	0.831	0.578	0.208	

Source: Field survey (2022)

Assessing the Structural Model

This section provides an assessment of the hypotheses of this study. Assessment of the structural model entails assessing collinearity among constructs, coefficient of determination, predictive relevance, effect size, path coefficient and its significance. In this study, both the direct and the indirect model was run together based on the recommendation of Nitzl et al. (2016).

Table 7 shows the result for assessing multicollinearity among the indicators for this study. In the context of PLS-SEM, a tolerance value of 0.20 or lower and a VIF value of 5 and higher respectively indicate a potential collinearity problem (Hair et al., 2011). More specifically, an indicator's VIF level of 5 indicates that 80% of its variance is accounted for by the remaining formative indicators associated with the same construct. With respect to the endogenous variable (employee engagement), the results from Table 7 shows a minimum VIF of 1.539 and highest of 2.478, and a minimum tolerance value of 0.323 and highest of 0.718. With respect to organisational justice, VIF (min-1.502 and max-2.402) tolerance, it indicates a minimum tolerance value of 0.246 and

highest of 0.487. The values obtained from this analysis indicated the absence of multicollinearity between the indicators.

Table 7: Collinearity amongst constructs

	EE (VIF)	EE (Tolerance)	OJ (VIF)	OJ (Tolerance)
PWE	1.238	0.191	1.712	0.217
PSE	1.605	0.367	1.995	0.468
WPE	2.340	0.311	1.919	0.262
SWE	1.611	0.149	2.026	0.218

Source: Field survey (2022)

The VIF results in Table 7 further confirms the absence of common method bias. Based on the criteria proposed by Kock and Lynn (2012), the occurrence of a VIF value greater than 3.3 is proposed as an indication of pathological collinearity, and also as an indication that a model may be contaminated by common method bias. Therefore, if all VIFs resulting from a full collinearity test are equal to or lower than 3.3, the model can be considered free from the problem of vertical or lateral collinearity and common method bias (Kock, 2013).

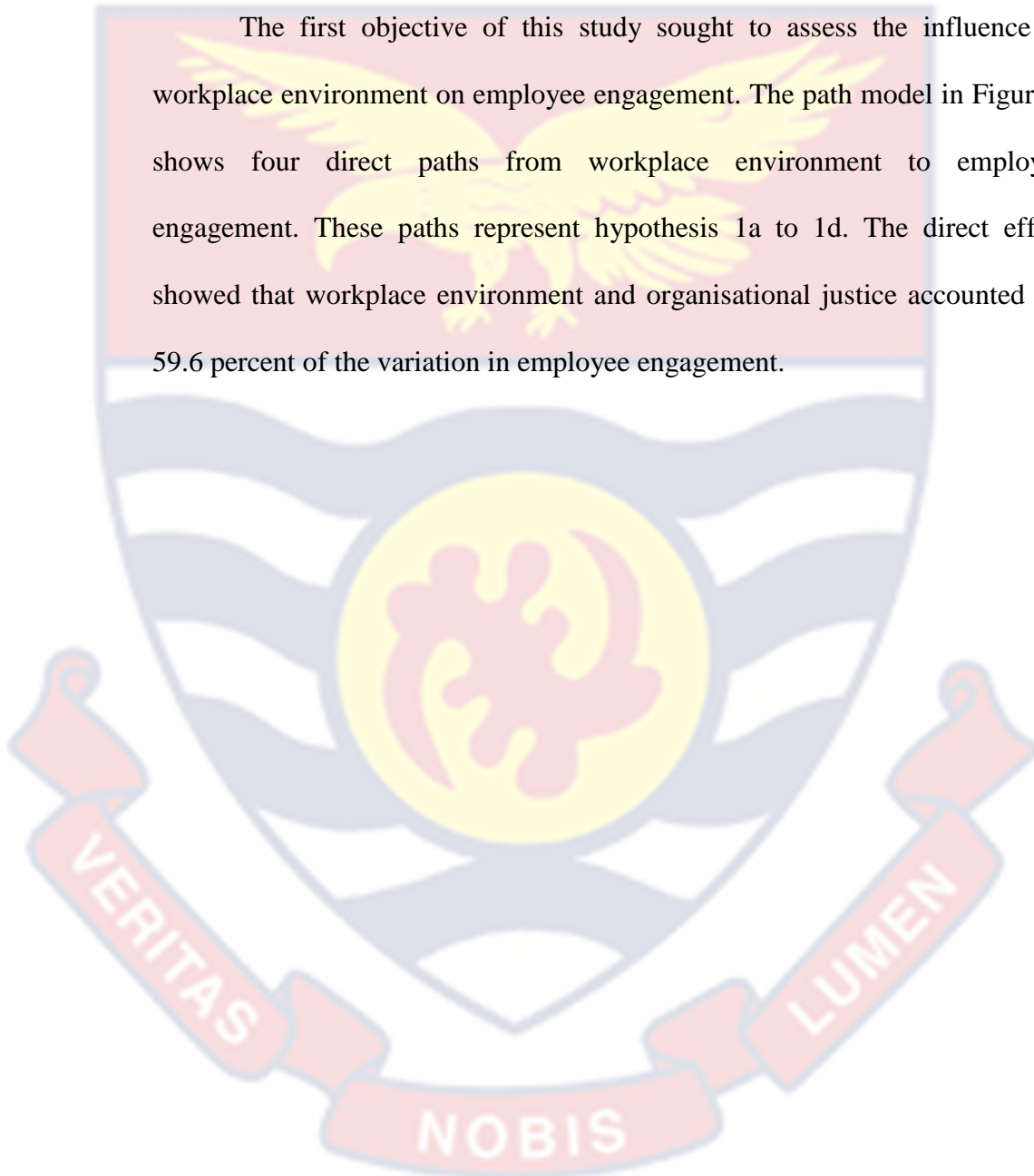
Assessing Coefficient of Determination and Predictive Relevance

The R^2 is a measure of the model's predictive accuracy. Another way to view R^2 is that it represents the exogenous variable's combined effect on the endogenous variable(s). Hair et al. (2014) advanced that a coefficient of determination (R^2) of 0.25, 0.5 and 0.75 are considered as weak, moderate and substantial respectively for structural models. The author further asserted that a predictive relevance (Q^2) of "0.02, 0.15 and 0.35" and effect size (f^2) of

“0.02, 0.15 and 0.35” are seen as “small, medium and large” respectively for structural models.

Objective one: Assess the influence of Workplace Environment on Employee Engagement

The first objective of this study sought to assess the influence of workplace environment on employee engagement. The path model in Figure 3 shows four direct paths from workplace environment to employee engagement. These paths represent hypothesis 1a to 1d. The direct effect showed that workplace environment and organisational justice accounted for 59.6 percent of the variation in employee engagement.



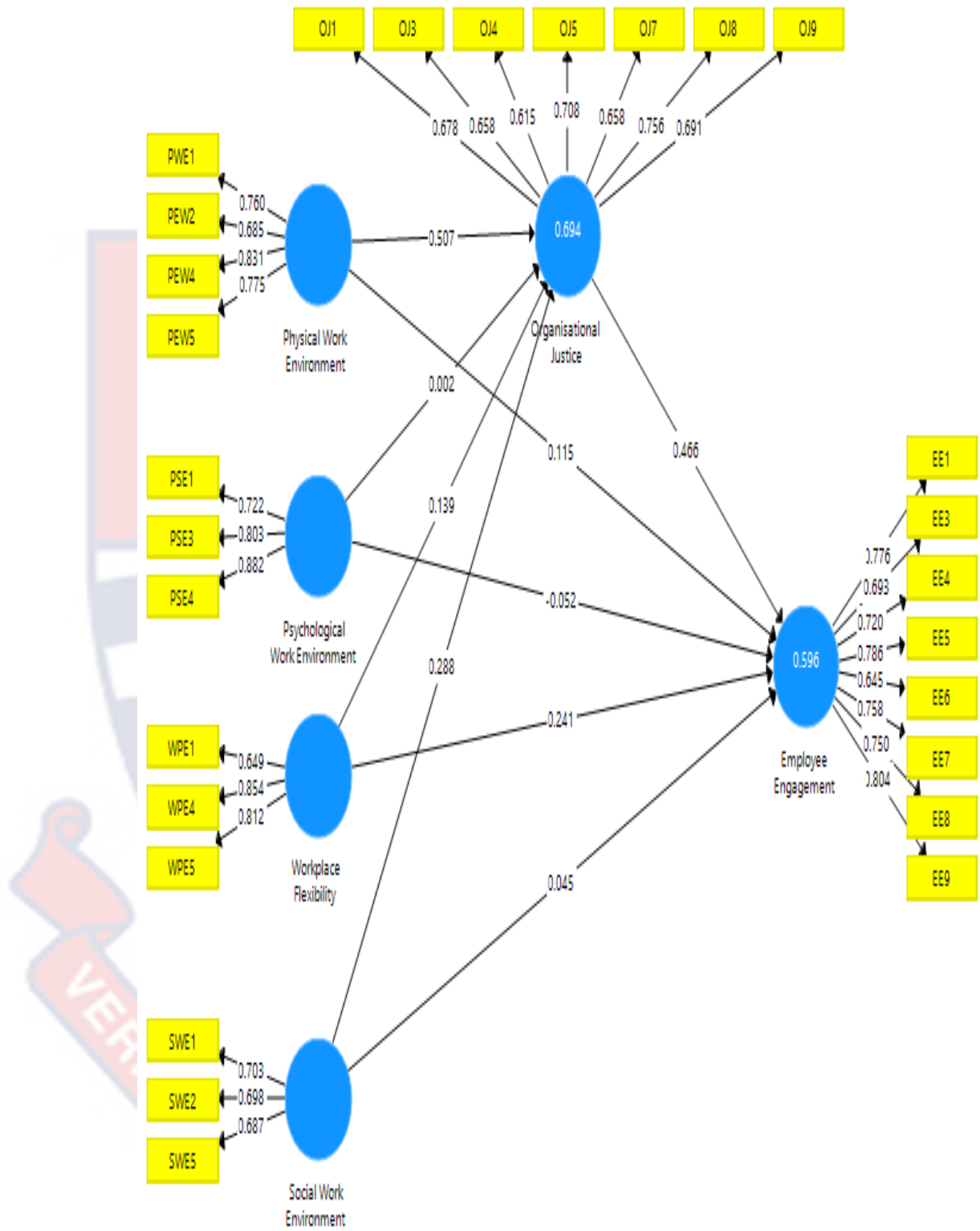


Figure 3: Outer and inner model results
 Source: Field survey (2022)

The first hypothesis was formulated to determine whether there is a relationship between physical work environment and employee engagement.

The formulated hypothesis thus reads:

H1a: Physical work environment has a positive effect on employee engagement

Table 8: Structural model results for hypotheses 1a, 1b, 1c, and 1d

	Path	T	R ²	Adjusted R ²	Q ²	P-Value	f ²
	Statistics						
EE			0.596	0.575	0.293		
PWE	0.115	0.795				0.002	0.009
PSE	-0.052	0.622				0.115	0.005
WPE	0.241	1.580				0.004	0.043
SWE	0.045	0.368				0.713	0.002

Source: Field survey (2022)

Referring from Table 8, it can be concluded that workplace environment and have a large (0.596) coefficient of determination on employees' engagement, accounting for 59.6 percent of the variation in employee engagement. With respect to predictive relevance, the results show a moderate predictive relevance of the model on the endogenous variable (0.293). This shows that the exogenous variable does well to predict the endogenous variable. The results of the effect size show that workplace environment had a moderate effect size on the endogenous variable (employee engagement).

Based on the path estimation, the results of the PLS-SEM showed that physical work environment had a significant positive effect of employees' engagement ($\beta = 0.115$, $p < 0.05$; Table 8, Figure 4). The path coefficient was in the same direction as hypothesized; hence the hypothesis that physical work environment was related to employees' engagement is supported.

The second hypothesis was formulated to determine whether there is a relationship between psychological work environment and employees' engagement.

H1b: Psychological work environment has a positive effect on employee engagement

Based on the path estimation, the results of the PLS-SEM showed that psychological work environment had no significant effect on employees' turnover intentions ($\beta = -0.052$, $p > 0.05$; Table 8, Figure 4). The result fails to support the hypothesis that psychological work environment has a positive effect on employee engagement. The results are inversely related to what was hypothesised. It leads to a conclusion that employee engagement is not necessarily stimulated by the individual's psychological being.

The third hypothesis of this study sought to test the effect of workplace flexibility on employee engagement. The hypothesis was stated that;

H1c: Workplace flexibility has a positive effect on employee engagement

The study estimated the path between workplace flexibility and employees' engagement. The results as shown in Figure 4 and Table 8, indicated a path coefficient of 0.241 and a p-value of 0.004. The path coefficient was in the same direction as hypothesized, hence the hypothesis that workplace flexibility was related to employees' engagement is supported.

The final hypothesis of the first objective sought to assess the influence of social work environment on employees' engagement. Thus, the hypothesis was stated as follow;

H1d: Social work environment has a positive effect on employee engagement

Based on the path estimation, the results of the PLS-SEM showed that social work environment had no significant effect on employees' innovative work behaviour ($\beta = 0.045$, $p > 0.05$; Table 8, Figure 4). Based on the path estimation, the study failed to support the hypothesis that social work environment is related to employees' engagement.

A summary of the decisions with respect to objective one is presented in Table 9.

Table 9: Summary of Objective 1

Hypothesis	Beta	t-value	P-value	Decision
PWE-EE	0.115	0.795	0.002	Supported
PSE-EE	-0.052	0.622	0.115	Not supported
WPE-EE	0.241	1.580	0.004	Supported
SWE-EE	0.045	0.368	0.713	Not supported

Source: Field survey (2022)

Two hypotheses stated as part of the first objective was not supported because their p-value was > 0.05 . The results, however, show that, workplace flexibility had the highest significant effect on employee engagement due to the magnitude of its path coefficient (0.241), this is followed by physical work environment (0.115). It should be noted that workplace environment has a higher effect on employees' engagement than physical work environment,

psychological work environment and social work environment, as dimensions of workplace environment.

Objective Two: Assessing the influence of organisational justice on employee engagement

The second objective sought to assess the influence of organisational justice on employee engagement. The objective was tested as part of the entire model, representing the direct path from organisational justice to employee engagement. Thus, the study hypothesised;

H2: Organisational justice has a positive effect on employee engagement

Table 10: Structural model results for hypothesis two

Path	T Statistics	R ²	Adjusted R ²	Q ²	P-Value	f ²
EE		0.694	0.681	0.296		
OJ	0.466	3.325			0.001	0.165

Source: Field survey (2022)

Based on the path estimation, the results of the PLS-SEM showed that organisational justice had a significant positive effect of employee engagement ($\beta = 0.466$, $p < 0.05$; Table 10, Figure 4). The results show that the organisational justice is a key determinant to facilitate employees' engagement. Comparatively, Organisational justices' effect size of (0.165) shows a moderate effect on employee engagement. The results also show that organisational justice has a medium and a positive effect (0.165) on employee engagement based on the criteria of Hair et al. (2014). Therefore, based on the direction and the significance of the path between organisational justice and employee engagement, the study supports the assertion that organisational

justice has a significant effect on the decisions to employees to engage in the activities within the organisation towards organisational survival and growth.

Because the p-value is <0.05 , the study will therefore side with the assertion of the research hypothesis that; organisational justice has a significant and a positive effect on employee engagement.

Objective Three: Examine the Mediating Role of Organisational Justice on Workplace Environment and Employee Engagement Nexus

The third objective of this study sought to examine the mediating role of organisational justice on workplace environment and employee engagement nexus. Given that workplace environment has a significant effect on employees' engagement, and organisational justice also has a significant and positive effect on employee engagement, a mediation test was possible. As Nitzl (2016) had indicated, a significant indirect effect is the only prerequisite for establishing a mediation effect. This objective formed the basis for testing hypothesis 6. According to the procedure outlined by Hair et al (2017), the mediating effect of organisational justice on the nexus between workplace environment and employee engagement was examined through bootstrapping.

The results of the total effect are presented in Table 11. It indicates the significance of every path hypothesised in the model.

Table 11: Total effect

	Path	T Statistics (O/STDEV)	P-Values	f ²
PWE -> EE	0.115	0.795	0.002	0.009
PWE -> OJ	0.507	5.018	0.000	0.289
PSE -> EE	-0.052	0.622	0.115	0.005
PSE -> OJ	0.002	3.067	0.003	0.008
WPE -> EE	0.241	1.580	0.004	0.043
WPE -> OJ	0.139	3.226	0.000	0.019
SWE -> EE	0.045	0.368	0.713	0.002
SWE -> OJ	0.288	3.297	0.001	0.140
OJ -> EE	0.466	3.325	0.000	0.165

Source: Field survey (2022)

From Table 11, it can also be inferred that physical work environment (PWE) has a direct influence on both employee engagement ($p=0.002$) and organisational justice ($p=0.000$). Physical work environment, therefore, can have a direct influence on both employees' engagement and organisational justice. In this study it has been concluded that an organisational justice has a significant and positive influence on employees' engagement at the workplace ($p= 0.000$). Having already established a positive relationship between social work environment (SWE) and employee engagement in its positive directional path ($\beta = 0.045$), the relationship between social work environment and employee engagement is not significant ($p=0.713$). However, the relationship between social work environment and organisational justice was deemed to have a positive directional path and at a significant level ($\beta = 0.288$, $p=0.001$). It can therefore be said that, organisational justice is key for establishing a

significant effect between social work environment and employee engagement. Lastly, the results from Table 11 indicate that workplace flexibility has a positive influence on both employee engagement ($p= 0.004$) and organisational justice ($p= 0.000$).

Table 12 shows the coefficient of determination and predictive relevance of the model on the two endogenous variables. The results show that the entire model accounts for 59.6% of the variation in the employee engagement. According to Chin (1998), an R^2 value of 59.6% indicates a large variation, which is sufficient (Hair et al, 2017). Also, with respect to the mediating variable, the results show that 46.6% of the variation in employee engagement is accounted for by the perceived organisational justice within the organisation. The Stone-Geisser's Q^2 statistic (Stone, 1974) was used to assess the predictive relevance of the model. The model shows a predictive relevance of 0.293 for employee engagement and 0.296 for organisational justice indicate medium predictive relevance according to Hair et al (2016).

Table 12: Coefficient of Determination (R^2) and predictive relevance

	R Square	R Square Adjusted	$Q^2 (=1-SSE/SSO)$
EE	0.596	0.575	0.293
OJ	0.694	0.681	0.296

Source: Field survey (2022)

Based on the positive significant effect of the mediating variable (Organisational justice) on employee engagement, and the positive effect of some dimensions of workplace environment on organisational justice, the specific indirect effect was assessed to determine the nature and type of mediating effect as proposed by (Niltz et al, 2016 & Hair et al, 2017). The

mediation analysis was tested between the dimensions of workplace environment and employees' engagement. This led to testing 4 hypotheses with respect to the indirect effect. The results of the specific indirect effect are presented in Table 13.

Table 13: Structural model results for hypothesis 6

	T Statistics (O/STDEV)	P- Value	Decision
PWE-> OJ->EE	3.017	0.001	Supported
PSE-> OJ->EE	0.783	0.173	Not Supported
WPE->OJ->EE	2.014	0.000	Supported
SWE->OJ->EE	3.734	0.004	Supported

Source: Field survey (2022)

The first step of testing the effect of the exogenous variable on the mediating variable showed that physical, workplace flexibility and social workplace environments had a relationship with organisational justice. It is seen that only psychological workplace environment had no relationship with organisational justice. The results from Table 13 shows that organisational justice mediates the relationship between physical workplace environment and employee engagement. Based on the criteria of Hair et al, (2021), it can be concluded that a full mediation occurs physical workplace environment and employee engagement.

The results showed that workplace flexibility, a dimension of workplace environment, can only influence employee engagement by ensuring that, there is justice and fairness as perceived on the part of employees. The results also showed that the path social work environment-organisational justice-employee engagement is significant. This leads to the conclusion that

organisational justice mediates the relationship between physical, workplace flexibility and social work environments and employee engagement. Based on Carrión et al (2017), the nature of the mediation of organisational justice is a complimentary partial mediation. This is because both the direct and indirect effect is statistically significant and are both positive (PWE → EE, 0.002, PWE → OJ, 0.000; WPE → EE, 0.004, WPE → OJ, 0.000; SWE → EE, 0.713, SWE → OJ, 0.001). The findings lead to the conclusion that physical, workplace flexibility and social workplace environments can be complemented by creating a fair system that supports employee engagement within the tertiary educational institutions. The findings of this are supported by the results of Kaur and Randhawa (2020) who concluded that organisational fairness mediates the relationship between physical, workplace flexibility and social workplace environments and employees' engagement.

Also, Nwachukwu (2021) found that organisational justice, through enhancing the recognition of employee creativity, the flexibility to change, and resources for innovation is significantly associated with employees' perceptions of an attitude of engagement. Concluding that, the degree to which an employee perceives resources for engagement is positively related to the degree to which the employee perceives a culture of engagement at his or her work unit. Adu-Gyamfi, He, Nyame, Boahen and Frempong (2021) added that the workplace and its environmental factors influence employees' perceptions of fairness and justice for engagement and encouragement of productivity and creativity. Thus, it can be concluded that justice and fairness for engagement is a direct result of workplace environment in the organisation (Koomson, 2021; Honu, Dzansi, Dzansi & Boemah, 2022) and justice affects engagement.

This current study could only affirm a mediating role of organisational justice on physical, workplace flexibility and social workplace environments. Based on the social exchange theory, this study has shown that institutions that sets the workplace environment proper, in terms of physical, flexibility and social dimensions, influence employees' engagement and hence their performance. Though not all workplace environments can bring equal results, they add up to the discussions that the complex nature of tertiary educational institutions demand a multi environmental approach. The results have shown that when the goal is to stimulate engagement behaviours among employees in order to solve educational and societal problems, physical, flexibility and social workplace environments are needed. And also, workplace environments, can only influence employee's employee behaviour by creating a supportive justice system.

Chapter Summary

This chapter began with a description of the respondents to the study. The chapter began with an assessment of the influence of workplace environment on employee engagement. The second objective assessed the influence of organisational justice on employee engagement and finally, examine the mediating role of organisational justice on workplace engagement and employee engagement nexus. The study showed that there was a positive relationship between workplace environment and organisational justice. The chapter concluded with assessment of the mediating role of organisational justice on the relationship between workplace environment and employee engagement. The next chapter presents the conclusions and recommendations of the study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The current chapter is the final chapter for this study. As a concluding chapter, it will capture information pertaining to a summary of the study, conclusions on the significant findings of the study, recommendations to the findings, limitations of the study and suggestions for future research. The presentations of the conclusions and the recommendations will be in line with the three specific objectives discussed in chapter four.

Overview

The main aim of this study was to determine workplace environment's influence on employee engagement of administrative senior staff at the University of Cape Coast and the role of organisational justice in mediating such a nexus. Specifically, the study sought to; assess the influence of workplace environment on employee engagement of administrative senior staff at the University of Cape Coast, determine the effect of organisational justice on employee engagement of administrative senior staff at the University of Cape Coast and examine the mediating role of organisational justice on workplace environment and employee engagement behaviour nexus among the administrative senior staff at the University of Cape Coast.

To help achieve these objectives, six supporting hypotheses were formulated and tested accordingly. The study employed partial least squares structural equation modelling as the main statistical technique for testing the hypotheses. From a population of four hundred and seventy-eight (478) administrative senior staff in the University, 214 were sampled, using the

simple random technique, the Microsoft Excel random number generation was used to randomly select respondents for the study. In total, 209 valid responses were obtained from the University. The study began with a pre-test with 25 staff of University of Mines and Technology (UMaT). Following the success, a self-administered questionnaire based on scales from reliable and on extensive literature was administered to the respondents. This was done to avoid common method bias. The instrument centred on characteristics of the respondents as well as the variables considered in this study.

The demographic information on respondents was analysed using descriptive statistics (frequencies and percentages). The three main objectives of this study were analysed using partial least squares structural equation modelling techniques with the aid of the SMART PLS version 3.0, while the descriptive were processed with the SPSS Version 26. An alpha level of 0.05 was used for all tests of significance. Four major hypotheses were developed for the first objective, one for the second objective and one for the third objective. The major findings as they related to the specific objectives and hypotheses of the study have been summarised below.

Summary of Key Findings

With respect to the first objective, the influence of workplace environment on employee engagement of administrative senior staff at the University of Cape Coast was assessed:

1. The results showed that two workplace environment variables (physical and workplace flexibility) had a positive significant influence on employees' engagement. However psychological and social workplace

environments were found not to influence employees' engagement within the University.

2. The results also showed that workplace flexibility had the largest significant influence on employees' engagement among the workplace environments measures. This was followed by physical, social and psychological workplace environments respectively.

The second objective of this study assessed the influence of organisational justice on employee engagement.

3. Regarding this objective, it was found that organisational justice had a significant positive influence on employee engagement within the University. The findings of this study show that organisational justice had a moderate effect size on employee engagement, larger than the workplace environments.

The third objective assessed the mediating effect of organisational justice on the relationship between workplace environments and employees' engagements.

4. The results indicated a mediating effect of organisational justice between physical workplace environment, workplace flexibility, social workplace environment and engagement. The results showed that organisational justice mediated the relationship between three workplace environments (physical, workplace flexibility and social) and employees' engagement. Only psychological workplace environment had no significant indirect effect.

5. The findings showed that the direct effect of physical work environment on employees' engagement could be complemented through

organisational justice. In addition to this, the study found a full mediation between workplace flexibility and employees' engagement. This shows that workplace flexibility and social environment could only stimulate engagement through an organisational justice that supports engagement.

Conclusion

The conclusions are drawn based on the findings of the study.

1. With respect to the first objective, it is concluded that workplace flexibility had the highest significant effect on employee engagement. This is followed by physical work environment. It should be noted that workplace environment has a higher effect on employees' engagement than physical work environment, psychological work environment and social work environment, as dimensions of workplace environment.
2. The study also adds that psychological work environment had no significant effect on employees' engagement. The study concluded that psychological work environment has a negative effect on employee engagement. The results are inversely related to what was hypothesised. It leads to a conclusion that employee engagement is not stimulated by an individual's perception of the psychological workplace environment
3. With respect to the second objective, the study concluded that the organisational justice is a key determinant to facilitate employees' engagement. Comparatively, this study concludes that organisational justice within tertiary educational institutions has a medium influence on employees' engagement. Drawing from the social exchange theory, the study concludes that the supply of resources fairly in an organisation will

contribute to employee engagement, based on reciprocity. Therefore, based on the direction and the significance of the path between organisational justice and employee engagement, the study supports the assertion that organisational justice has a significant effect on the decisions of employees to engage in the activities within the organisation towards organisational survival and growth.

4. With respect to the final objective, this study concludes that workplace flexibility, a dimension of workplace environment, can only influence employee engagement by ensuring that, there is justice and fairness as perceived on the part of employees. This leads to an implication that organisational justice mediates the relationship between physical, workplace flexibility and social work environments and employee engagement. This implies that physical, workplace flexibility and social workplace environments can be complemented by creating a fair system that supports engagement within the tertiary educational institutions.

Recommendations

The following recommendations are based on the conclusions drawn from this study;

1. The management of tertiary educational institutions in Ghana must encourage a proper physical workplace environment and flexibility at the workplace. Findings of the study revealed that workplace flexibility had the largest significant influence on employees' engagement among the workplace environments measures. Physical workplace environment was the next workplace measure with the most influence. The University management should develop initiatives aimed ensuring a flexible and

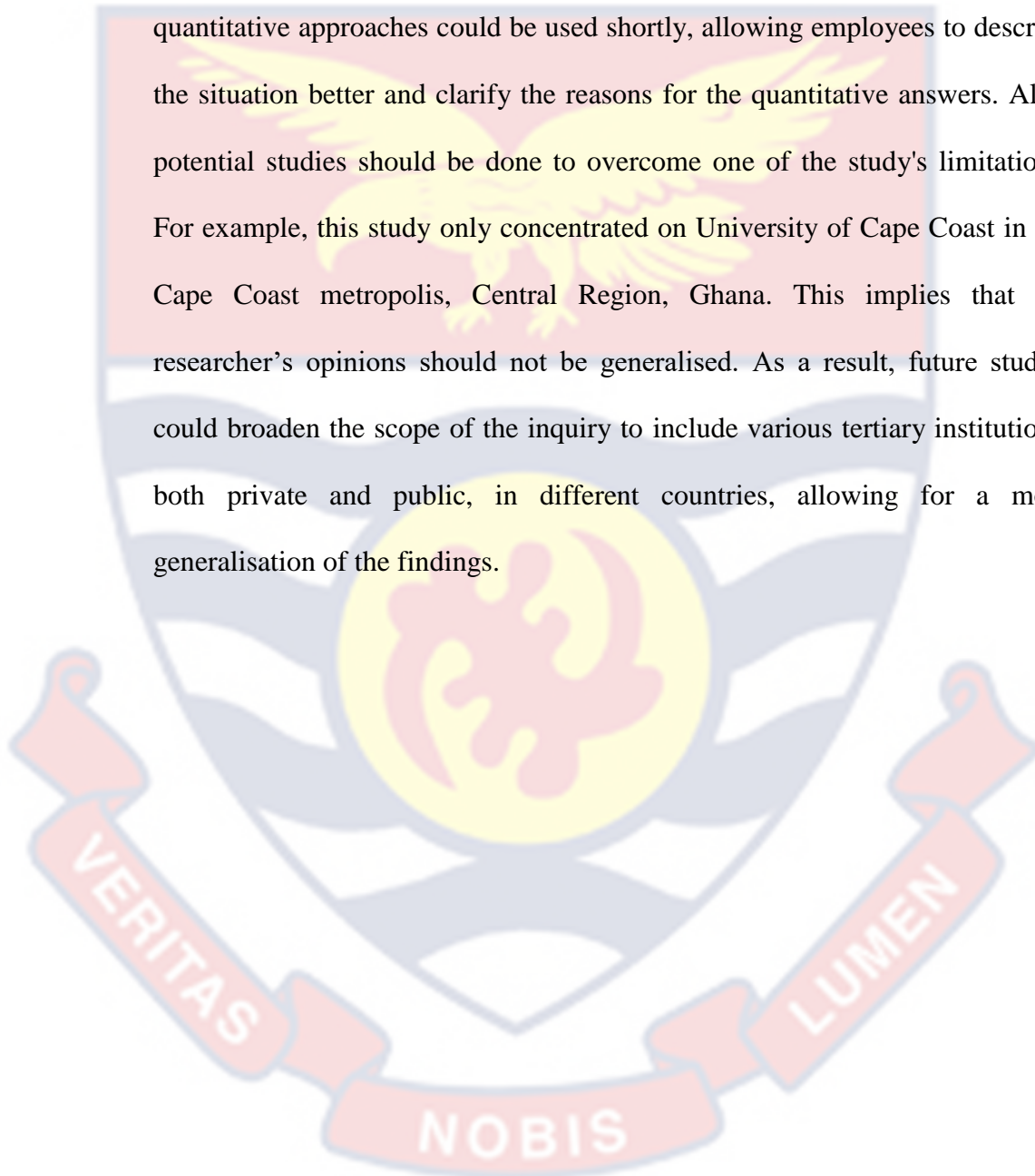
conducive physical workplace to elicit the needed engagement behaviours from employees to enhance productivity at the workplace. This will encourage exposure to engagement ideas, and provide an environment for work to thrive and become productive.

2. Training for the University staff must be encouraged by Management of the University of Cape Coast and the various Universities and tertiary education institutions. All the workplace environment constructs – physical, workplace flexibility and social – with the exception of psychological workplace environment, are predictors of proper employee engagement behaviours needed to enhance productivity at the workplace, according to findings of the study. The focus should be on developing engagement skills for ensuring a multi-actor workplace environment with respect to the physical, social and the flexibility. Training must focus on encouraging all categories of staff to ensure the provision of proper workplace environment to promote staff engagement behaviours needed for productivity.
3. Provision of a workplace environment which assures employees of fairness and justice is a precursor necessary to elicit proper engagement behaviours needed to boost productivity, according to findings of the study. For this reason, Management of universities should put in place mechanisms which will allow employees to experience an engagement supportive justice or fairness workplace. These include; making resources available, including the time required to continuously engage in innovation activities; providing financial resources specifically for generating and implementing innovative ideas and; allowing employees

to take risks in the pursuit of engagement and to tolerate and learn from failures.

Suggestions for Further Research

This research focused on quantitative analysis, but qualitative and quantitative approaches could be used shortly, allowing employees to describe the situation better and clarify the reasons for the quantitative answers. Also, potential studies should be done to overcome one of the study's limitations. For example, this study only concentrated on University of Cape Coast in the Cape Coast metropolis, Central Region, Ghana. This implies that the researcher's opinions should not be generalised. As a result, future studies could broaden the scope of the inquiry to include various tertiary institutions, both private and public, in different countries, allowing for a more generalisation of the findings.



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APPENDICES

APPENDIX A: INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST

COLLEGE OF DISTANCE EDUCATION

DEPARTMENT OF BUSINESS STUDIES

Telephone: 03321 32440/32444

Ext. 219/220

Direct: 03321 37870

Telegrams: University, Cape Coast

Telex: 2552, UCC, GH.

UNIVERSITYPOST OFFICE
CAPE COAST, GHANA



Dear Sir/Madam,

INTRODUCTORY LETTER FOR DANIEL YEBOAH MENSAH

The bearer of this letter, Daniel Yeboah MENSAH, is an MCom (Management) student of the Department of Business Studies, College of Distance Education, University of Cape Coast. He is writing his thesis on “Workplace Environment and Employee Engagement of Administrative Senior Staff at the University of Cape Coast: The Mediating Role of Organisational Justice”.

We would be grateful if you could assist him with filling the questionnaires and any other information that he may need to complete his work.

We appreciate your co-operation.

Yours faithfully,

Signed

S. F.

HEAD

APPENDIX B: QUESTIONNAIRE
UNIVERSITY OF CAPE COAST
COLLEGE OF DISTANCE EDUCATION
DEPARTMENT OF BUSINESS STUDIES

Dear Respondent,

I am a student at the University of Cape Coast, offering a Master of Commerce degree in Management programme at the Department of Business Studies, College of Distance Education, University of Cape Coast. This questionnaire is designed to ascertain information for my research work on the topic: **“WORKPLACE ENVIRONMENT AND EMPLOYEE ENGAGEMENT OF ADMINISTRATIVE SENIOR STAFF AT THE UNIVERSITY OF CAPE COAST: THE MEDIATING ROLE OF ORGANISATIONAL JUSTICE”**. This research is in partial fulfilment of the requirement for the award of a Master of Commerce degree in Management at the University of Cape Coast.

All the answers you provide will be treated with the utmost confidentiality and for academic purposes only. Please feel free to answer the questions as candidly as possible.

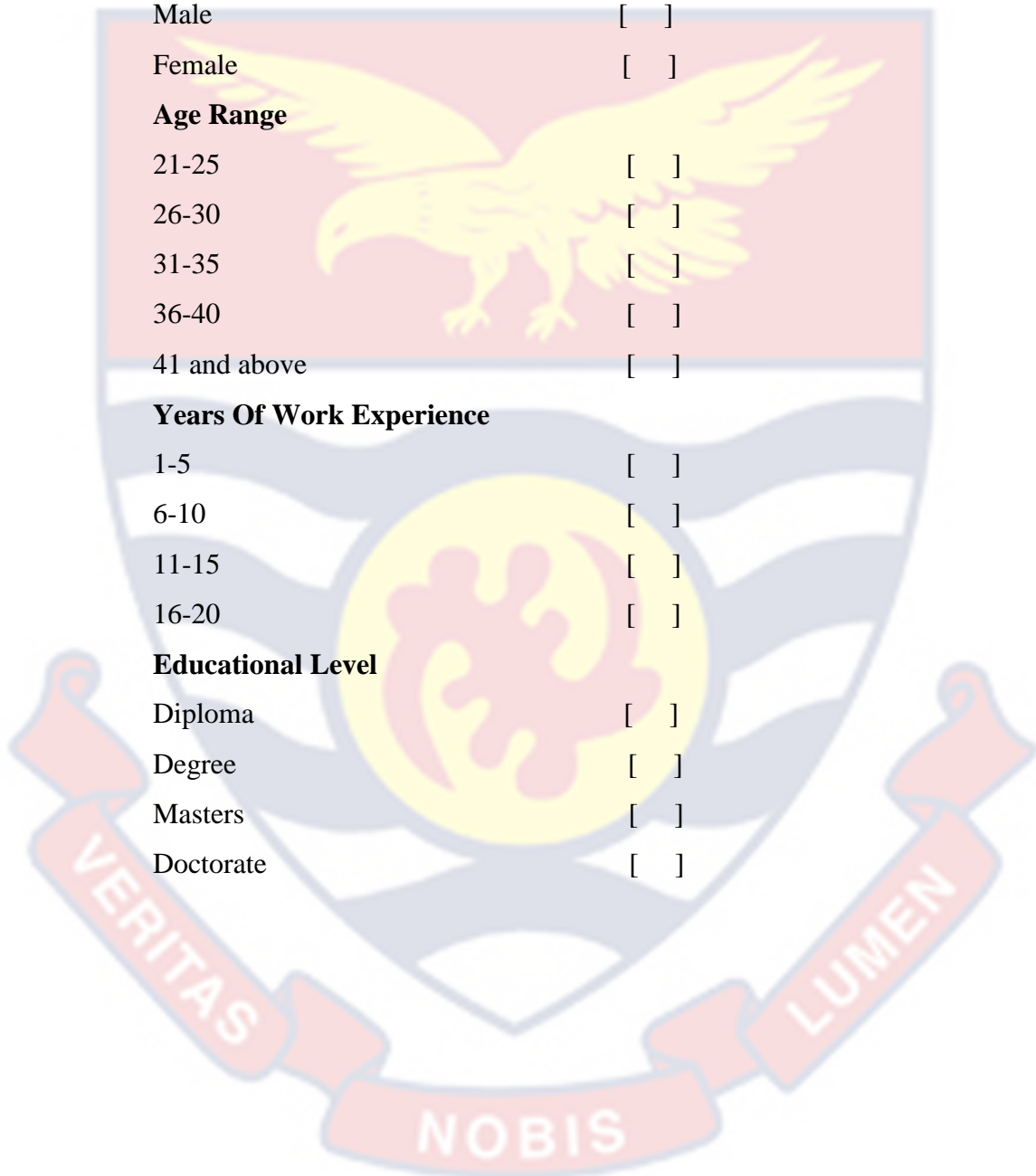
Thank you

Daniel Yeboah Mensah

SECTION A

SOCIO-DEMOGRAPHIC DATA OF RESPONDENTS

To answer a question, either tick [] or write short notes on the space provided where necessary.

SexMale []Female []**Age Range**21-25 []26-30 []31-35 []36-40 []41 and above []**Years Of Work Experience**1-5 []6-10 []11-15 []16-20 []**Educational Level**Diploma []Degree []Masters []Doctorate []

SECTION B: WORKPLACE ENVIRONMENT CONSTRUCTS

Please indicate your agreement level concerning the underlying statements of workplace environment in line of the constructs by ticking (√) the most appropriate column: according to a 4-point Likert scale, where 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, and 4 – Strongly Agree.

PHYSICAL ENVIRONMENT

s/n	Statement	1	2	3	4
1	UCC provides comfortable and adjustable office furniture to perform my duties				
2	The office environment is strong, quality and clean				
3	There is the availability and usage of computer for work.				
4	There is Enough office space and privacy				
5	There is proper lighting and less power outages in my office				

PSYCHOLOGICAL ENVIRONMENT

s/n	Statement	1	2	3	4
1	My organisation provides opportunities for promotion for high performing employees.				
2	Financial support for learning programs motivates me to perform better at work.				
3	My organisation provides incentives that generally support my work.				
4	I feel motivated as an employee of this organisation				
5	The University has salaries increment policy in existence				

WORKPLACE FLEXIBILITY

Items	1	2	3	4
1. Flexitime - e.g. part-time work, rostered hours, night/day shifts				
2. Telecommuting - e.g. having the flexibility to work from home using a computer				
3. Part-time work - e.g. working fewer hours than a full-time worker				
4. On-site child-care center - e.g. child-care available at the location of the company				
5. Subsidised local child-care - e.g. the company's contribution to the needed child-care costs				

SOCIAL WORK ENVIRONMENT

s/n	Statement	1	2	3	4
1	Management recognises employees for contributing new ideas				
2	My relationship with colleagues affects my performance				
3	There is high support by my superiors in performing my duties.				
4	UCC has clear reporting relationships which make it easy communication				
5	Superiors effectively communicates with subordinates				

SECTION C: QUESTIONNAIRE ON ORGANISATIONAL JUSTICE

Thinking about organisational justice in general, read the statements below carefully and rate how much you personally agree or disagree with each statement. Use a scale of 1-4 with where 1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree

Items	1	2	3	4
Overall, the rewards I receive here are quite fair				
I feel that my responsibilities are fair				
My supervisor makes sure that all employee concerns are heard before Job decisions are made.				
To make job decisions, my supervisor collects accurate and complete information				
My supervisor clarifies decisions and provides additional information when requested by employees				
All jobs' decisions are applied consistently to all affected employees				
Employees are allowed to challenge or appeal job decisions made by the supervisor				
When decisions are made about my job, my supervisor treats me with kindness and consideration				
When decisions are made about my job, my supervisor treats me with respect and dignity				
When decisions are made about my job, my supervisor is sensitive to my personal needs				

SECTION D

QUESTIONNAIRE ON EMPLOYEE ENGAGEMENT

These 18 statements are about how you feel about your level of your engagement at work. In a 4-point Likert scale, where 1 – Strongly Disagree, 2 – Disagree, 3 – Agree, and 4 – Strongly Agree, rate the following statements on the condition of your engagement in your organisation.

Items	1	2	3	4
1. I would be very happy to spend the rest of my career in this organisation.				
2. I do not feel a strong sense of belonging to my organisation				
3. I am often certain about the expected results of my work				
4. I am often certain about how my work overall relates to the overall objectives				
5. I am often certain about job feedback from my supervisor				
6. I am often certain about the opportunity to find out how well I am do				
7. I understand exactly how my job contributes to the goals and objectives				
8. I intent to stay in this my organisation for a long period of time				
9. I do not mind taking on new or challenging assignments in my organisation				
10. I usually try to have self-study to increase the quality of work outputs				

APPENDIX C: COMMON METHOD BIAS EXTRACTION

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.554	30.321	30.321	14.554	30.321	30.321
2	5.531	11.523	41.843	5.531	11.523	41.843
3	3.490	7.271	49.114	3.490	7.271	49.114
4	2.697	5.618	54.732	2.697	5.618	54.732
5	2.514	5.237	59.969	2.514	5.237	59.969
6	1.571	3.273	63.242	1.571	3.273	63.242
7	1.526	3.179	66.421	1.526	3.179	66.421
8	1.303	2.715	69.136	1.303	2.715	69.136
9	1.216	2.533	71.670	1.216	2.533	71.670
10	1.144	2.382	74.052	1.144	2.382	74.052
11	1.014	2.113	76.166	1.014	2.113	76.166
12	.878	1.829	77.994			

Extraction Method: Principal Component Analysis.

APPENDIX D:***KREJCIE AND MORGAN'S SAMPLE SIZE DETERMINATION TABLE***

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310

35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Krejcie, R. V., & Morgan, D. W. (1970).