

# UNIVERSITY OF GHANA

## DEPARTMENT OF PSYCHOLOGY



**OCCUPATIONAL STRESS AND JOB EMBEDDEDNESS AMONG PERSONNEL OF  
THE GHANA NAVY: THE MODERATING ROLES OF JOB SATISFACTION AND  
COMMITMENT**

**BY  
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**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN  
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MPhil  
IN INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY DEGREE.**

**DECLARATION**

I, Justice Ackam, declare that this thesis is the outcome of my study conducted under the objective supervision of Dr Ernest Darkwah and Dr Joana Larry-Afutu. All references to other people's work have been appropriately acknowledged. The current study has never been submitted to any university in any manner, in whole or in part for the purpose of receiving a degree.

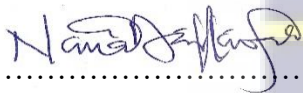


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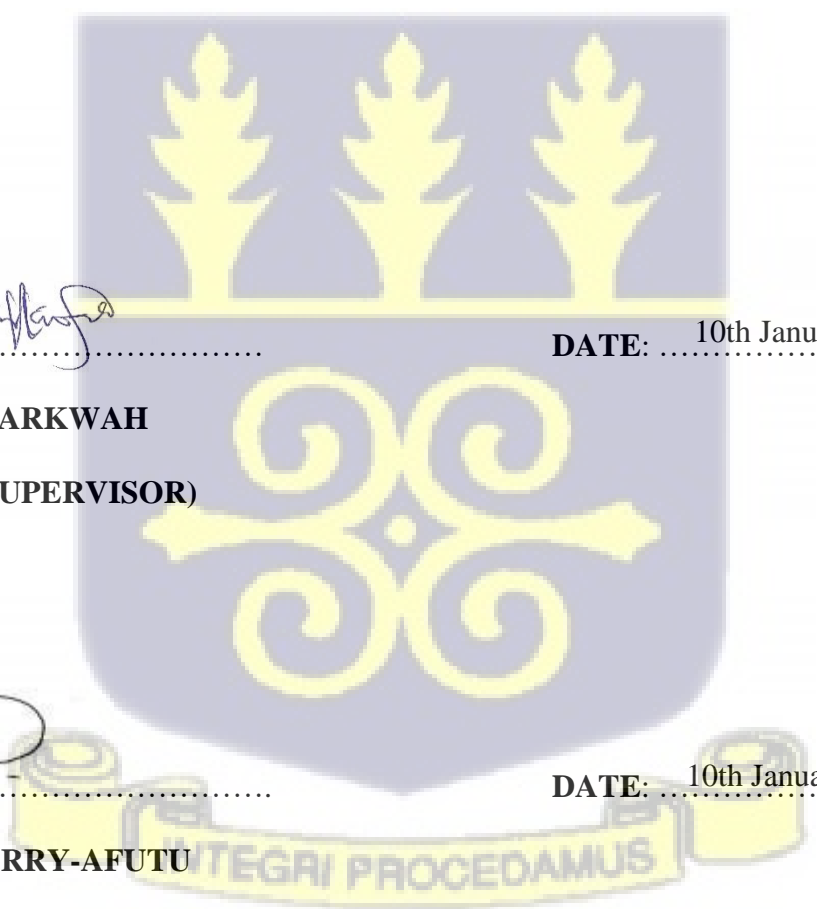


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## **DEDICATION**

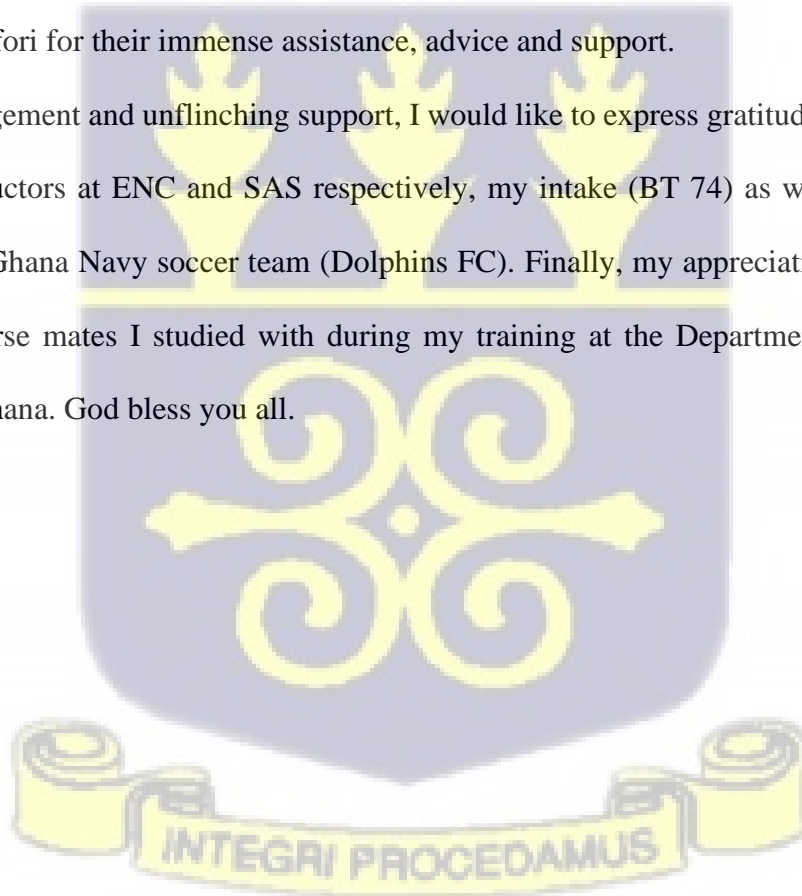
This project is in honour of my family especially to my dad, Mr David Tetteh Ackam, my mom, Madam Agnes Adukwei Allotey and my wonderful sister Miss Belinda Kweki Ackam. I also dedicate this project to personnel of the Ghana Navy.



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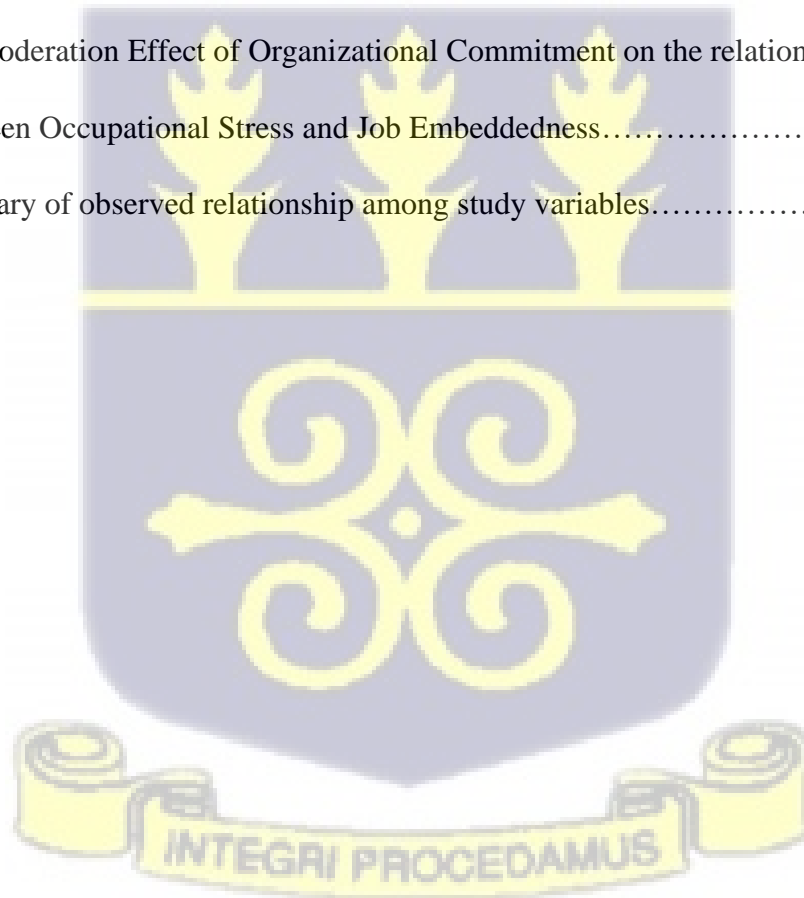
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**LIST OF ABBREVIATIONS**

AC	:	Affective Commitment
AFR	:	Armed Forces Regulation
AWOL:		Absence without Leave
CC	:	Continuance Commitment
COR	:	Conservation of Resource
ENC	:	Eastern Naval Command
FOF	:	Flag Officer Fleet
GAF	:	Ghana Armed Forces
HR	:	Human Resource
ILO	:	International Labour Office
JD-R	:	Job Demand Resource
JE	:	Job Embeddedness
JS	:	Job Satisfaction
NAVTRAC	:	Naval Training Command
NC	:	Normative Commitment
NHQ	:	Naval Headquarters
OC	:	Organizational Commitment
OS	:	Occupational Stress
WNC	:	Western Naval Command



## ABSTRACT

*The Ghana Navy over the last few decades has recorded some early voluntary release and Absence without Leave (AWOL) incidences. These turnover behaviours do not only affect the service but affects the Ghana Armed Forces (GAF) and the entire nation and therefore needs critical attention from high command and policymakers. This study investigated the relationship between occupational stress and job embeddedness and the possible roles that job attitudes (job satisfaction and organizational commitment) play in this relationship among personnel/ratings of the Ghana Navy. Four hundred and fifty-six (456) personnel were sampled from the units and commands of the Ghana Navy. The study used the quantitative cross-sectional design in which personnel were required to respond to items on a set of questionnaires measuring demographic factors, occupational stress, job satisfaction, organizational commitment and job embeddedness. Pearson Correlation analysis, Standard Multiple Regression Analysis, Hierarchical Regression and Regression analysis using Haye's Process Macro (for assessing the moderation effects) were used for analyzing the statistical data. The results indicated that occupational stress, job satisfaction and organizational commitment recorded significant positive relationship with job embeddedness with organizational commitment strongly predicting job embeddedness compared to job satisfaction and occupational stress. Furthermore, it was indicated that job satisfaction and organizational commitment played a moderating role in the relationship between occupational stress and job embeddedness such that the relationship was enhanced at higher level of the moderators. The findings and implications were discussed and recommendations were made for future research.*

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

Over the past few decades, organizational researchers have been involved in investigating elements that influence organizational productivity. One factor constantly confirmed to affect productivity is the issue of turnover (Tariq & Riaz, 2013). The concept of turnover has been defined differently by scholars. Turnover simply refers to the quitting of employees from an organization and according to Petriglieri (2011), it is a coping method used by employees to get out of their current situation. Employees tend to leave their jobs for reasons including unavoidable reasons (illness, death, family issues), advancement (for promotions and better pay), escape (from people, working conditions, and stress), and unmet needs and expectations (Aamodt, 2016). Other researchers have indicated more security, harassment, poor relationships with leaders and colleagues, and lack of re-organization as potential reasons workers quit (Irabor & Okolie, 2019). According to Branham (2012), 89% of managers believe money is the reason employees leave, while employees who left for other reasons represent 88%. Turnover can be either “voluntary or involuntary” (Hom & Griffeth, 1995), as well as “functional or dysfunctional” (Watrous et al., 2006).

Turnover has been identified to be very harmful to organizations and has been confirmed to be very costly thereby posing difficult manpower problems to different organizations because of investments made by these organizations in their employees over a long period. Straw (1980 cited in Murnieks et al., 2011) also indicated myriad negative aspects of turnover such as the cost of hiring and training replacements or disruptions to operations and productivity. Cascio (2000),

indicated a direct cost of employee departure to include “separation cost, replacement cost, and training cost”. Furthermore, there are indirect costs like poor customer service, migration of customers along with employees, effect on other employees, effect on morale, loss of diversity, loss of leadership, loss of knowledge, reduced productivity and a potential gain of competitors. According to Spector (2012), recruiting and selection can be laborious and costly while for other jobs, a very long period of training and orientation might be mandatory before workers can function.

In the military, turnover is a phenomenon that has assumed a global dimension and requires critical attention from the military hierarchy and policymakers. Military personnel leaving their work is a growing problem that threatens the operations of the security sector globally and in Ghana, early voluntary release and Absence without Leave (AWOL) are all turnover behaviours that are encountered and recorded in naval and other military establishments quite frequently. Out of these, AWOL is frowned upon and punishable if personnel fall victim to it, however, this does not deter some personnel from engaging in such punishable behaviour. Art. 15.01 of the Armed Forces Regulations (AFR) Vol 1 indicates that the release of personnel may be due to the following reasons; misconduct, inefficiency, medically unfit, voluntary retirement, and compulsory retirement to promote economy or efficiency. According to Hom et al. (2010), “there are two main ways to voluntarily leave the military. First, one can simply not reenlist at the end of a contract period. Secondly, one can wait to become fully vested (i.e., stay in the military for some required number of years to become eligible for retirement benefits) and retire”. These are consistent with what transpires in the Ghana Armed Forces. Lytell and Drasgow (2009) indicated that military personnel leave their job due to comparisons of the military to civilian lifestyle. Jetten and Gelooven (2000) in their study of the Royal Netherlands Army indicated that 57% of personnel

occasionally considered searching for a job outside the RNLA and almost a quarter (23%) indicated that they have applied for a job outside the RNLA within the past year.

Results showed that from 2010 to the early part of 2019, the total number of ratings<sup>1</sup> that left the Ghana Navy due to AWOL and early voluntary release amounted to a total of 134 (Ghana Navy HQ, Admin Department). This does not only damage the reputation of the service but comes with a great cost both to the service and the country since personnel leaving the armed forces very early could create a serious concern for the country's defence. "From the organization's perspective, it takes substantial time, money, and effort to recruit new personnel, and such loss often disrupts the regular operations of the military as well as fosters low workforce morale" (Mabuza & Dodd, 2020). Recruitment and hiring can be a major cost according to Spector (2012) since in the Ghana Navy, a long period of training and investments are required to equip personnel with the necessary skills i.e., from standard military training, basic naval training, sea training, and to other special qualification training before personnel can be fully productive to execute the mandate of the Ghana Navy. Pandit (2008) indicated that the military is faced with a draining battle which includes failure to entice qualified individuals to join, and those already serving are pursuing early withdrawal in huge numbers.

According to Dechawatanapaisal (2018), "employee retention is an issue of strategic importance for today's organizations". A major question that always challenges researchers and practitioners is "What makes people stay?" A critical issue in organizations is employee retention and predominantly that of professional or skilled employees. Retention is an organizational tactic

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<sup>1</sup> Ratings refer to non-commissioned officers or personnel of other rank status of the Navy.

to be competitive, with the existing human resources to achieve productivity and power so most countries make retention of military personnel their number one priority.

Researchers and practitioners continue to request investigations on knowledge and improved comprehension of workers' attitudes, to identify which factors influence their decision to stay with an organization. Interestingly, study attention is gradually moving away from why workers leave the organization and toward why workers stay in the organization (Zhang et al., 2012; Zainuddin & Noor, 2019). It should also be noted that "the opposite of turnover intention is intent to stay" (Costen & Salazar, 2011 cited in Sow et al., 2016). Work engagement, job immersion, job satisfaction, organizational commitment, work engagement (Holtom & O'Neill, 2004), stress (Griffeth et al., 2000; Podsakoff et al., 2007) and intention to leave (Griffeth et al., 2000) that over the years dominated the turnover models are all factors that explain reasons employees stay or depart. However, while the models were successful in detecting predictors of turnover, they only explain a small fraction of employee retention.

An emerging approach to this problem has been proposed by Mitchell et al., (2001) who presented the idea of Job Embeddedness (JE). As proposed by Moses (2012), the concept of job embeddedness has been accepted by researchers because it provides a unique approach to turnover (examining why workers stay instead of why they depart). "Embeddedness is the idea that individuals can become enmeshed in their surroundings and situation to such an extent that they have a difficult time separating from it" (Ng & Feldman, 2009). The construct of "embeddedness describes the forces that influence turnover decisions, focusing on the aspects of fit and structural ties and relationships" (Allen, 2006). Job embeddedness has received unique attention in organizational behaviour due to the new and valuable theory it provides to help describe how workers interaction with their work setting and conditions affect their attitudes and behaviour.

Rather than preventing employees from leaving for other organizations, job embeddedness focuses on maintaining them in the organization. Job embeddedness according to this notion distinguishes it from earlier models for forecasting turnover. As a result, several empirical research have followed this study path and discovered that workers who are more enmeshed in their jobs have a lower propensity to attrition (Mitchell & Lee, 2001; Crossley et al., 2007; Holtom et al., 2008). According to Mitchell et al. (2001), “job embeddedness is the collection of forces that motivate employees to stay with their organizations”. They referred to the phenomenon as a desire of being fixated, a “stuckness” to the job, or “a net or a web in which an individual can become stuck”. Lee et al., (2004), describe job embeddedness as “staying rather than leaving and represents a large range of ideas that influence a person to stay”. Thus, it is a retention or “anti-withdrawal” concept. Yang et al. (2011) defined it “as an overall construct conceptualized as the combined forces that keep a person from leaving his or her job” while Robinson et al. (2014) indicated job embeddedness as the “state of mind in which an employee decides to stay within the organization due to the certain organization related deciding factors”.

According to Mitchell and Lee (2001), job embeddedness remains the status quo in the organization and as for most people, it is not regarded as a choice process but the forces that hold them from leaving or engaging in that choice process. Job embeddedness represents factors that anchor personnel to the organization, and the happier they feel about their work, the less likely they will look elsewhere. Job embeddedness when enhanced brings lots of benefits to the organization. It is considered a boon for the organization to reduce turnover (Marasi, et al., 2016), boost morale, strengthen commitment, increase resilience, improve work relationships, as well as increase well-being and job satisfaction within the organization.

Job embeddedness is categorized as “on the job embeddedness (*JE<sub>on</sub>*) and off the job embeddedness (*JE<sub>off</sub>*)”. On the job embeddedness or organizational embeddedness is the internal constraint that influences retention in the organization and off the job embeddedness also known as community embeddedness indicates external factors that make individuals stay in the organization wherever they live (Gonzalez et al., 2018).

Mitchell et al. (2001) claimed that job embeddedness addresses three situational facets, each of which is considered both on- and off-the-job. These dimensions are fit, link and sacrifice. “Fit is the perceived compatibility or comfort with one’s organization or community. Links on the other hand are the formal or informal connections one has with other entities at work or in the community such as people, groups, places, things, or activities. Lastly, sacrifice refers to the perceived material or psychological costs associated with leaving one’s current job or community” (Clinton et al., 2012). The military’s focus on providing a lifestyle rather than merely a job, the deep bonds formed between coworkers, and the military’s largely unique working experience and network of support services are all extremely relevant for the faces of job embeddedness which is the fit, link and sacrifice (Clinton et al., 2012). Studies have established that the organizational facets of job embeddedness are directly related to HR practices and job attitudes which are organization-related factors (Allen, 2006). As a result, the ambit of this current study is on job embeddedness in the workplace, also known as on the job embeddedness or organizational job embeddedness.

Despite the increasing number of knowledge in job embeddedness research, researchers still have a lot to offer and advocate for more pragmatic findings, predominantly on how job embeddedness develops so that a link between workers and organizations can be established (Marasi et al., 2016). It is therefore imperative to further examine factors that influence job

embeddedness and their respective roles, which preceding research has not yet carefully investigated (Dechawatanapaisal, 2018). “The military environment has been discussed as a rich context in which to study aspects of human resource management because of its size, diversity of personnel, and global scope” (Smith et al., 2008 cited in Clinton et al., 2012) and job embeddedness within the military setting is a highly pertinent concept (Clinton et al., 2012).

### **1.1.1 Occupational Stress and Job Embeddedness**

Occupational stress remains one of the most important workplace health hazards for all workers globally (Rehman et al., 2012). Stressors and their severity in the military are crucial prerequisites for projecting a thorough comprehension of military occupation stress, for implementing measures necessary for stress reduction, for augmenting productivity-enhancing solutions and improving soldiers’ wellbeing (Campbell & Nobel, 2009).

“Stress is an unpleasant psychological process that occurs in response to environmental pressures” (Robins & Judge, 2015). Taylor (2018) indicated that the study of stress has helped identify the pathways by which stress leads to poor health. Although stress is seen to play a negative role in the health of people it also improves an individual’s accomplishment at the workplace, improves motivation, satisfaction, and performance (Matthewman et al., 2009). It is indicated that workers may seem that they are better equipped to handle some stressful situations and then completely collapse when faced with others. Researchers have identified two main types of stressors namely hindrance stress and challenge stress. According to Webster et al. (2010) hindrance stressors are perceived as barriers to goals that cannot be overcome through hard work and dedication. They deplete motivation and lead to exhaustion and burnout. It is also indicated that hindrance stressors can lower team performance and increase psychological withdrawal (Pearsall et al., 2009). Example of hindrance stressors include role ambiguity, office politics, and

red tape. Challenge stressors on the contrary are those that motivate workers to work harder and be resilient by supporting personal, emotional and material goods. Example of challenge stressors include large workload, time pressure, high level of responsibility among others. Workers will therefore work harder when stressed if they believe that the increased stress will lead to a raise, a promotion or a sense of achievement. Webster et al. (2010) stated that both hindrance and challenge stressors can cause strain but challenge stressors can provide positive outcomes. Legg (2018) also indicated that stress (good stress/eustress) had its benefits which include improvements in cognition and alertness, helping one to escape from unpleasant situations, and making one tough. Occupational stress on the organizational level is associated with workers performance, reduction in attention, focus and judgement skills, reduction in employees' morale, motivation, quality of working life, job attitudes, and "may lead to increased burnout and physical, mental, and emotional exhaustion, absenteeism and intention to leave workplace" (Mosadeghrad, 2014). Osipow and Spokane (1984 cited in Norris, 2004) stated that significant sources of problems in the workplace are role stressors.

According to McKensey (2017), military personnel have some of the most challenging tasks and often have little resources to accomplish those tasks. "The military occupation involves many risks and stressors to include combat exposure, potential death and injury, witnessing others being injured or killed, uncertainty, powerlessness, boredom, heavy workload, and dangerous training activities" (Alford & Cuomo, 2009). According to the Director-General Armed Forces Medical Services (2002), unique stressors affecting soldiers include stressors during training ( loss of emotional support from family and friends, new rigid discipline framework, demanding nature of physical training, lack of privacy, constant onus to compete and qualify for the next stage, inability to address problems at home due to preoccupation with training), stressors during

peacetime (improper or poor interpersonal relations, domestic problems related to marital life, health problems of family members, insecurity of family members, children's education, property disputes, financial problems, inadequate response by civil administration to the problems of service personnel) and stressors in the field (separation from family members, adverse or demanding climatic conditions, isolation, long tenures, unknown enemy in counter-insurgency areas, uncertainty of life, difficult living conditions, fatigue). The life of military personnel is inherently tough, and the coming together of these domestic and vocational pressures can easily become overwhelming.

Most studies on stress among military personnel have involved those with combat exposure with little research on personnel during peacetime. According to Campbell and Nobel (2009), "the military's traditional mission of warfighting has expanded to include multiple new tasks (e.g., assisting natural disaster victims, delivering humanitarian aid, peacekeeping, nation-building, etc.) and these new military undertakings have substantially added to the likelihood that soldiers at all levels will experience stress during their service tours". The stress levels among military personnel are likely to be eminent even during this peacetime due to the routine military environment.

According to Pflanz (2001 cited in Sharma, 2015), the negative impact on the mental health and wellbeing of military personnel can be attributed to occupational stress arising from routine military work activities. Researchers have examined stress mainly from the standpoint of psychological effects perspective, categorizing distinct stressors based on the psychological impact they have on a person. However, there is evidence of the influence of occupational stress on some behaviours and attitudes of individuals. For example, a survey conducted by Zhao and Humayun (2010) examined that stressors at the workplace impacted the retention of workers in a

large global bank. Aamodt (2016) also indicated that an increase in job stress results in lower job satisfaction and commitment and increases the probability of employees skipping work.

Though occupational stress can be examined in a composite or global form, researchers are steadily growing more familiar with facet measures of the construct currently owing to the appreciation that workers outcomes are precipitated by the different facets of occupational stress. For example, workers who feel their working condition is poor may elicit behaviours that may differ from those who experience work overload. Also, some dimensions of occupational stress like work overload and work-family conflict have been explored to have a link with job embeddedness. A study conducted by Karatepe (2013) indicated that “heavy workload and conflicts in the work-family interface, coupled with emotional exhaustion impeded retention and result in poor service delivery” of workers. Thus, work overload coupled with work-family conflict influenced emotional enervation which resulted in workers experiencing low job embeddedness and having impoverished performance. Workload demands, limited growth opportunities, personal/family difficulties, and working conditions will be the focus of stress in this study. These facets of work experience were utilized in a study by Remondet and Hansson (1991) to investigate work-related pressures to control among workers. Reduced control in these areas was linked to “increased job stress, generalized stress, depression, injuries on the job, absenteeism, decreased job involvement, less job satisfaction,” and poor performance (Remondet & Hansson, 1991).

No matter the forms it takes, there is a lot of research that links occupational stress which is subjective among workers to outcomes and behaviours including organizational commitment, turnover, and counter-productive behaviours (Lemire & Rouillard, 2005). However, what has not been so eagerly researched is the type of stress and its unique association with job embeddedness.

### 1.1.2 Job Satisfaction and Job Embeddedness

Research evidence on job satisfaction and its outcomes abound. One main task organization researchers perform is evaluating employee attitudes about their jobs and determining ways to improve them. One of the most studied variables according to Spector (2012) is job satisfaction and Sanjeev (2016) indicated that the importance assigned to job satisfaction studies have been because a job is part of our identity.

Turnover as a problem facing the military has the propensity to rise when soldiers are disgruntled and when there is mistrust between them and their leaders which could jeopardize the general security of the nation (Cole, 2014 cited in Mabuza & Dodd, 2020). Workers level of job satisfaction is a reflection of how they feel in general and with specific areas of their jobs. Simply put, “job satisfaction is the extent to which people like their jobs” (Spector, 2012). Job satisfaction according to scholars remains critical to efficient human resource management and is complicated by cultural differences globally, as well as differences in individual requirements and jobs (Hauff et al., 2015). Considering it as attitudinal, there has been a recent consensus in considering job satisfaction to be a tripartite model consisting of cognition (belief) about the study object, affective experience with the object, and behavioural intentions regarding the object (Sanjeev, 2016).

Most researchers have differentiated the attitude of job satisfaction into its affective and cognitive components. The affective component is an overall satisfaction measure and the cognitive component is a measure of facets relating to the job like pay, supervision and other facets. Additionally, job satisfaction may be divided into two categories based on the employee's level of feelings, according to Mueller and Kim (2008). First is an overall feeling about the job and second is about specific aspects of the job like pay or co-worker relation etc. The study of attitude also throws up the additional challenge as the behavioural outcome of an attitude is always

not exactly predictable (Sanjeev, 2016). Therefore, organizational changes have been a common feature of modern organizations, including the military, as prevailing situations necessitate frequent strategizing for the military to reach the standard and be operative.

The global and facet approach to the study of job satisfaction are regarded as the two fundamental approaches to the phenomenon according to Spector (2012). The former views job satisfaction as a single, overarching emotion toward the workplace, whereas the latter approach focuses on specific components of the job such as pay, supervisors, coworkers, working environment, and the work itself. It's worth noting that both of these work-related attitudes are complex. Employees may be content with one aspect of their job (for example, compensation), but not with another (for example coworkers).

Several organizational important consequences are regarded to be the result of job satisfaction or dissatisfaction (Spector, 2012). These comprise job performance, counterproductive behaviours, turnover behaviour, and overall life satisfaction. Job satisfaction is also related to a wide array of workplace behaviours including organizational citizenship behaviour, presentism, and improved productivity. Some behaviour outcomes due to job satisfaction also have a significant influence on the well-being of workers. For example, dissatisfied employees, report greater physical symptoms, such as insomnia and stomach upset, than those who are satisfied. Job dissatisfaction has also been linked to unpleasant feelings including anxiety and despair. (Bowling & Hammond, 2008). The belief that satisfied workers are more likely to remain in the organization than disgruntled workers has been a basic belief for years though only recently has a study begun to ask questions on the relationship between job satisfaction and job embeddedness.

Despite all these, studies have found a link between the influences of job satisfaction on job embeddedness. Workers satisfaction and retention according to Irabor and Okolie (2019), are

the most important aspects of an organizations success and survival. They indicated that a workplace that creates an atmosphere that entices, inspire, and retain exceptional workers are better placed to be successful in today's competitive sphere of business, which demands quality and cost-effectiveness. Job satisfaction and retention remain some of the main concerns of organizations as the majority find it easy to identify and recruit candidates for employment rather than to satisfy and retain them. Motlou et al. (2016), in their study concluded that safe working conditions, effective communication, fair treatment, remuneration, promotion opportunities, growth opportunities, and getting along with colleagues enhance retention of employees in the organization.

Although research reveals that there is a link between job satisfaction and job embeddedness, evidence on the relevance of job satisfaction also suggests that different facets of job satisfaction may cause distinct employee outcomes, such as job embeddedness. Job satisfaction and its impact on employee output have been well researched, however, how it relates to job embeddedness have not been so keenly researched.

### **1.1.3 Organizational Commitment and Job Embeddedness**

Organizational commitment is very valuable and has a successful impact on the successful performance of any organization. It is a very popular attitudinal variable in the work environment. It is closely linked to job satisfaction, but it differs in that it focuses on an individual's commitment to the organization rather than whether they like or detest their job (Spector, 2012). Based on current research, no human characteristics and constructs have a greater impact on organizational outcomes than organizational commitment (Cater & Zabkar, 2009, cited in Valae & Rezaei, 2016). Organizational commitment, according to Meyer and Allen (1997), is the psychological state that links the individual to the organization. It may be used to assess employee loyalty to an

organization's mission and vision, as well as to determine who departs and who stays (Ayalew, 2015).

Military duty is very difficult since it requires not only more dedication and commitment to assigned responsibilities and tasks but also pride in service and ethical professional behaviour. "A sense of patriotism and pride in military service is often part of the military socialization process. Thus, commitment to the military may act as a buffer from the strains experienced in the military, making voluntary separations from the service less likely to occur" (Lytell & Drasgow, 2009). Because of the specific challenges and experiences that come with military work, organizational commitment may be more important in the military than in civilian populations (Kewley et al., 2017).

Outcomes of organizational commitment are akin to job satisfaction. These include performance, tardiness, turnover behaviours, organizational citizenship, and counterproductive behaviour. The study of organizational commitment has taken two perspectives—the global and the composite. From the global perspective, organizational commitment is identified as the acceptance of an organization's objectives, willingness to work hard, and desire to remain in the organization (Spector, 2012). Meyer and Allen (1997) established a composite method that incorporated affective commitment (emotional attachment to the organization), continuance commitment (the cost of leaving the organization), and normative commitment (obligation to remain with the organization).

Studies have validated the link between organizational commitment and job embeddedness. Employees who have a strong feeling of organizational loyalty or connection are less likely to engage in withdrawal behaviours even when they are dissatisfied, according to Robins and Judge (2015). Thus, it appears employees are willing to make sacrifices for the organization

even though they are dissatisfied with their jobs. Chip (2019) in her study indicated that all three dimensions of organizational commitment are related to employee retention. She concluded that organizational commitment fosters low turnover and absenteeism and contributes towards higher productivity. Other researchers also found out that, to increase the commitment level of workers, certain measures need to be put in place to enhance commitment which will lead to retention as well. A study conducted by Naqvi and Bashir (2015) proposed that factors like compensation, training and development, and supervisor support were all significantly related to the organization commitment which therefore led to the retention of workers in an IT firm.

Although several studies have been carried out on organizational commitment and its outcome, literature is normally centered on corporate institutions with little concentration on the military establishment. In view of this, the impact of organizational commitment on personnel's work embeddedness in the Ghana Navy must be addressed.

## **1.2 Problem Statement**

The organizational cost of employee attrition is very high, and it is not shocking that organizational researchers are focusing on employee retention in today's organizations. Over the years, occupational stress and job attitudes such as job satisfaction and organizational commitment are among the primary issues that determine whether employees will stay or leave (Heritage et al., 2016; Cheng and Chang, 2014; Peachey et al., 2014). Because the propensity to leave on the part of the employees now reflects the relatively new concept of Job Embeddedness (JE), the assumption is that factors that are associated with employee turnover may also be associated with job embeddedness. However, little empirical work has been done to exactly know how these factors are associated with job embeddedness in different work populations across established

different contexts (Besich, 2005). In other words, much regarding job embeddedness including the factors that precipitate it is still unknown (Nguyen et al., 2017).

While researchers have supported the job embeddedness construct and linked it to a variety of individual and group-level determinants in, for example, US organizations (Lee et al., 2004; Mallol et al., 2007; Sekiguchi et al., 2008), its relevance and functionality in other contexts are mostly unknown (Peltokorpi, 2012). In the specific case of the Ghana Armed Forces, less is known about the factors associated with job embeddedness and the roles that common predictors such as job stress and work attitudes play in the embeddedness of military personnel.

This leaves some research-based interventions more difficult to develop as some personnel issues remain essentially unaddressed. The existing study has demonstrated an association between some factors (occupational stress, job satisfaction, organizational commitment) on job embeddedness. Despite the evidence, there is little known regarding how the different dimensions of these predictors comparatively predict job embeddedness. Such details are important for intervention design and policy-making prioritizing. This research is therefore proposed to contribute to the existing literature by shedding light on the predictive relationships that exist between occupational stress, job satisfaction, organizational commitment, and job embeddedness. The study will go even further, looking into how these job attitudes affect the link between occupational stress and job embeddedness.

### **1.3 Rationale of the Study**

Despite the consequences that are precipitated by occupational stress, job satisfaction, organizational commitment, and job embeddedness on workers, the possible links between these factors and the unique influences of their facets seem not so much investigated. As a result, the literature is unclear on the precise relationships that exist between occupational stress, job attitudes

(job satisfaction and organizational commitment), and job embeddedness. There is also minimal evidence regarding the various characteristics of occupational stress, job satisfaction, and organizational commitment in determining job embeddedness. These characteristics make it difficult for the organization to devise solutions that will effectively address the impact of these issues on organizational productivity.

The current research seeks to explore how occupational stress and its dimensions as well as job attitudes (job satisfaction and organizational commitment) influence the job embeddedness of personnel of the Ghana Navy. Additionally, the study examines how job satisfaction and organizational commitment will moderate the degree to which occupational stress is linked to job embeddedness. Thus, the study will focus solely on how these predictors affect personnel decision to stay in the Ghana Navy regardless. Productivity and performance disparities of the Ghana Navy are not only affected by the lack of resources to operate but could be influenced by the lack of resources needed to enhance retention of personnel. As the Ghana Navy goes through complex transformations in operational requirements and expectations, it is important to also address issues like early voluntary release and AWOL incidences that have potential cost implications toward the achievement of their goals.

The current study will not only add up to existing knowledge on job embeddedness but be a resource to help provide research-based interventions and recommendations on enhancing retention strategies of personnel/ratings. Thus, these findings will provide a better understanding of personnel retention challenges for the Ghana Navy and other organizations. The Ghana Navy, the Ghana Armed Forces (GAF), the Ministry of Defense, and other stakeholders involved would therefore be better equipped for resolving psychological, attitudinal, behavioural and other outcomes that are reliant on the link between these study variables.

#### **1.4 Aims and Objectives of the Study**

The general objective of the study is to examine the association that exists between occupational stress, job attitudes (job satisfaction and organizational commitment), and job embeddedness among personnel/ratings of the Ghana Navy.

The following goals are specifically outlined.

1. To assess the relationship between occupational stress and job embeddedness as well as between job attitudes (job satisfaction and organizational commitment) and job embeddedness (JE) of personnel/ratings.
2. To examine the predictive ability of occupational stress, job satisfaction, and organizational commitment and their dimensions on Job Embeddedness of ratings.
3. To explore the moderation effect of job satisfaction on the relationship between occupational stress and Job Embeddedness.
4. To examine the moderation effect of organizational commitment on the relationship between occupational stress and Job Embeddedness.

#### **1.5 Relevance of the Study**

Understandably, stress is ubiquitous in most organizations including the military even during peacetime due to its routine, regimental nature, and other factors. This has had an impact on retaining personnel and has affected the smooth administration of the Ghana Navy over the past few decades. Even though a recognizable amount of study has been conducted on job embeddedness, more needs to be done to highlight the challenges and improve on retaining personnel in the Ghana Navy and the GAF. The key strength of this research is to add up to the pool of knowledge on job embeddedness in a sensitive organization like the military which will

help in policy formation for all stakeholders in the GAF. The study will provide empirical evidence and bring to the attention of the Ghana Navy on how occupational stress, job satisfaction, and organizational commitment individually and collectively precipitate organization embeddedness among personnel/ratings and consequently equip the service with the needed resources to enhance smooth retention. Thus, this exposition will go a long way in guiding the high command<sup>2</sup> to look for avenues to better the situation not only to reduce stress and enhance job attitudes but better the situation for the retention of naval personnel.



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<sup>2</sup> High command refers to personnel that consist of the most senior officers in a countries Armed Forces.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

As well as explaining the theoretical framework under consideration, this chapter provides a thorough overview of investigations that have been linked to this current study and their findings. The proposed hypotheses are outlined along with a conceptual model of the relationship between variables' relationships.

#### 2.2 Theoretical framework

Increasing developments of theories have emerged as a result of focusing research efforts on occupational stress, job attitudes (job satisfaction and organizational commitment), and their link with job embeddedness. Two important theories that were reviewed to serve as the framework for explaining the study's outcome were the Job Demand Resource Model and the Conservative of Resource Theory.

##### 2.2.1 Job Demand Resource Model (JD-R)

The Job Demand Resource Model according to Bakker and Demerouti (2007) can be applied to a variety of organizations. It is broadly used in occupational stress research and has been developed to explain how employees' circumstances affect their job outcomes and well-being. When it comes to analyzing the relationship between job features and employee well-being, this model is currently the most often utilized paradigm in occupational health psychology today (Lesener et al., 2019). The JD-R model is grounded on the premise that every job has unique

qualities that can be classified as demands or resources, and that these characteristics influence crucial job outcomes.

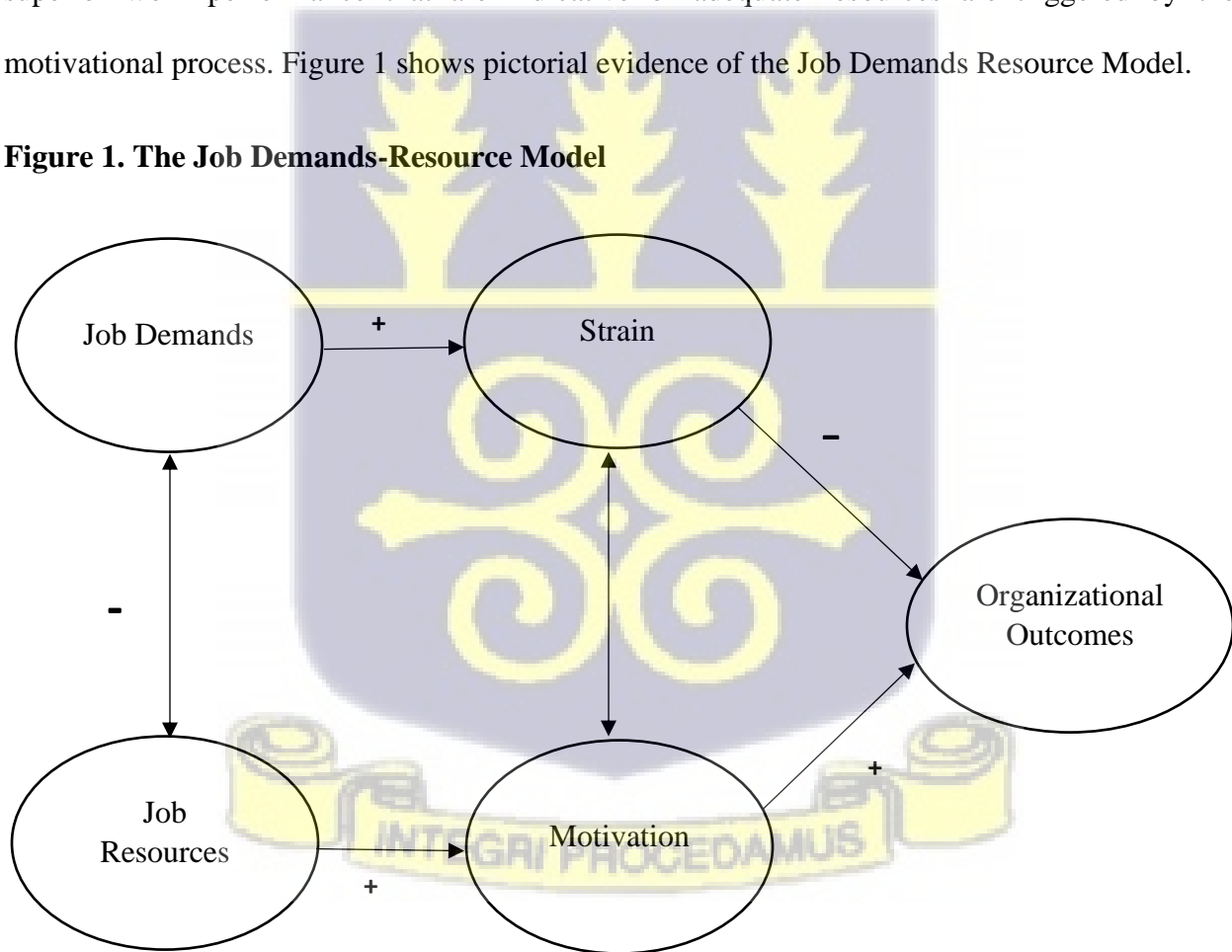
To improve productivity and retention, the model can be used as a conceptual framework for workplace monitoring. The JD-R model is a motivational process model in which individuals are motivated to behave to conserve and grow their resource base by both demands and resources acting simultaneously (Bakker & Demerouti, 2007). The impact of job demands differs from the impact of job resources. Job demands are noted for limiting an employee's resource availability leading to depletion of energy while job resources assist employees in developing their resource base and enabling resource gain, according to this concept.

Demerouti et al. (2001), referred job demands to those “physical, psychological, social, or organizational aspects of the job that require sustained physical or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and psychological costs”. Examples are role conflicts, harassment, bureaucracy, negative change, family work/ work-family conflict, interpersonal conflicts, emotional demands (Schaufeli, 2017), time and work pressure, unfavourable physical environment, and quantitative workload (Lesener et al., 2019). When job demands are high, the model assumes that extra effort is required to meet work goals and avoid poor performance. “Job resources refer to those physical, psychological, social, or organizational aspects of the job that are functional in achieving work goals, reduce job demands and the associated physiological and psychological costs and stimulate personal growth, learning, and development” (Demerouti et al., 2001). The organization of work (e.g. role clarity, participation in decision making), the levels of the organization (e.g. career opportunities, job security, pay), the level of the task (skill variety, task identity, task significance, autonomy,

performance feedback), interpersonal and social relations (e.g. supervisor and co-worker support, team climate), are where job resources can be identified in the organization.

According to Schaufeli (2017), two fundamental psychological processes (dual process): the stress process and the motivational process are incorporated in the JD-R model (see Figure 1). Firstly, undesirable outcomes such as sickness, absenteeism, poor performance, lack of organizational commitment and hampered workability can result from stress which is exacerbated by high job expectations and lack of resources. Secondly, work outcomes such as organizational commitment, intention to stay for the long term, extra-role behaviour, employee safety, and superior work performance that are indicative of adequate resources are triggered by the motivational process. Figure 1 shows pictorial evidence of the Job Demands Resource Model.

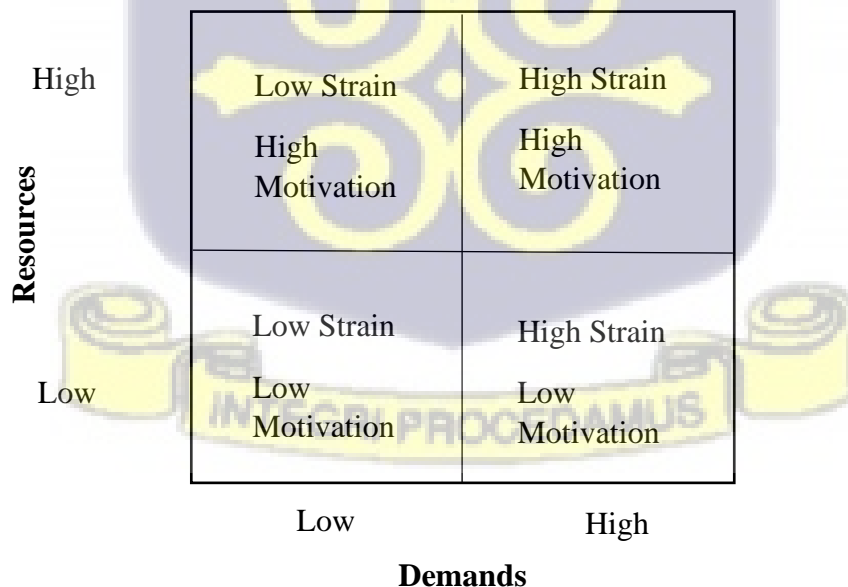
**Figure 1. The Job Demands-Resource Model**



Most researches indicating evidence for the dual-process in this model have been based on subjective analysis of job demands and resources. Thus, empirical evidence is supportive of the concept that job demands are related to strain and job resources are related to motivation (Bakker & Demerouti, 2007).

When these processes are considered together (additive effects), it may be concluded that when job demands and resources are high, employees will experience strain and motivation, and at the lowest level, employees will experience no motivation or strain. As a result, the high demands coupled with low resources condition precipitates high strain and low motivation while the low demands and high resources condition leads to low strain and high motivation (see Figure 2). The JD-R model as a result can be utilized as a guiding theoretical framework to develop the association between occupational stress and job embeddedness and regarding job attitudes (job satisfaction and organizational commitment) as moderators of the effects of occupational stress interface on job embeddedness.

**Figure 2. Job Demand Resources Model based on Additive Effects**



### 2.2.2 Conservation of Resource Theory (COR)

Employees' attempts to earn, protect, keep, and increase personally valued resources are explained by Hobfoll's (1998) COR theory, which is founded on psychosocial theories of human motivation. By focusing on the resources of individuals and groups, the theory provides a complete framework for understanding the impact of assessment on emotions and performance. Thus, it explains why people attempt to acquire, retain, protect and develop what they perceive to be valuable resources. Humans' basic motive, according to COR theory, is to build, protect, and nurture their resource pools to safeguard themselves and the social relationships that support them. The concept outlines a plan for preventing resource depletion, protecting existing resources, and obtaining the resources required to engage in appropriate conduct. Resources (valued characteristics, conditions) to the individual or in a social context can be both internal and external or tangible and intangible (Dechawatanapaisal, 2018).

According to COR theory, there is a positive association between the degree to which a person is immersed in their social circle and the resources available to them. Because increased resource availability makes it easier for employees to replace or substitute resources in the workplace, it improves their ability to coordinate their job demands. "Resource replacement refers to the replenishment of lost resources, whereas resource substitution refers to the finding of other resources to replace those that are lacking" (Hobfoll, 2001). Positive outcomes follow the accumulation and replenishment of resources, and to gain or create additional resources, employees may also invest towards it (Hobfoll, 2001). Alternatively, once resources are reduced, undesirable consequences (e.g., higher stress, increased desire to leave) emerge. That is, insufficient resources are linked to negative outcomes, whereas appropriate resources for dealing with a given situation are linked to favorable outcomes. According to Hobfoll and Ford (2007),

people work to obtain resources they lack, preserve those they do have, guard resources when they are endangered, and develop resources by situating themselves so that their resources can be put to the best use possible. Consistent with the COR theory, personnel/ratings characteristics (sex, unit, educational level, satisfaction and commitment level etc) may be attributable to one's available resource. In that, personnel with more resource may be able to better cope with stress in the organization. The model helps throw more light on the study because it indicates that personnel who feel their resources are being threatened by stress at the workplace may resort to use up their resource reserve in order to counter the impending situation. The COR theory was also used in this study to explain a condition of resource abundance that can be obtained from organizational resources to enhance job embeddedness.

### **2.3 Review of Related Studies**

Researchers have been conducting studies around the job embeddedness phenomena to point out the reasons that drive its existence as well as its repercussions since the identification of retention influence the organization and employee wellness. Several studies that have been researched over the years with regards to factors that influence job embeddedness and the consequences such factors have on the organization gave the idea for making certain predictions in this current study. There have also been some studies that have developed moderation hypotheses and examined how specific aspects like job resources and attitudes, could moderate the effects of variables that are commonly associated with job embeddedness.

#### **2.3.1 Occupational Stress and its Relationship with Job Embeddedness**

In a bid to throw light on the prevalence of occupational stress in the Ghanaian work context, Godwin et al. (2016) explored this endemic problem among nurses in Ghana. Stress is indicated to be a health problem in some occupations which decreases workers efficiency. The

healthiness of organizations and workers health is a major challenge globally which is precipitated by work stress. Using a purposive sampling technique and a self-administered questionnaire, 73 nurses from the nursing and midwifery department in the St Dominic Hospital in Akwatia, Ghana participated in the study. The study examined that the prevalence of stress emanates from insufficient motivation and staffing levels, handling a larger number of patients, absence of breaks/shifts, and problematic patients. The researchers however proposed major occupational stress management strategies including exercises, relaxation, meditation, and going on breaks to tone down the prevalence of stress in the hospital.

A similar study was conducted by Dartey-Baah et al. (2020) to examine occupational stress and its association with job satisfaction as well as its effects among some bankers. Because the banking industry is known for having demanding schedules and being under a lot of pressure, it is logical to look into how this setting affects employees stress levels and work attitudes. Using a cross-sectional survey, the researchers collected data from 122 tellers (N = 122) across four banks in Accra, Ghana. It was indicated tellers in these banks were few since banks are shifting to the use of automated teller machines. Testing for hypotheses using the required test (correlation, independent t-test and standard multiple regression), findings revealed occupational stress had a negative impact on job satisfaction and explained about 16% of the variations in job satisfaction, thus, tellers are more likely to exhibit counterproductive behaviours such as job dissatisfaction due to work-related stress. Sample size, gender disparity and the study and the analytical design were some limitations in their study which should be considered by future researchers for effective generalizability and establishment of better relationships among study variables.

Organizations in Ghana suffer from inadequate staffing, long working hours, exposure to toxic working conditions, and outdated and poor functioning equipment which are linked to the

occupational stress of workers. In examining occupational stress, (Ashong et al., 2016) deployed a quantitative design and purposive sampling method to select 190 radiographers in some selected hospitals in Ghana. Results in their study indicated that most radiographers experienced either moderate or high levels of stress at their workplace with consequences including sick absence, depression and job dissatisfaction.

As a result of the possible adverse costs of stress and the growing number of females in the labour force and executive positions, study on work-related stress has been critical to both organizations and individuals. Sackey and Sanda (2009) in their study, investigated the influence of occupational stress on the mental health of Ghanaian professional women. Using both questionnaires and interviews, data from 170 respondents were collected from 25 organizations in Accra which had substantial numbers of managerial females who were randomly selected. The finding of their study indicated that mental health was significantly related to stress. Thus, the more stressors the females experienced, the more propensity of experiencing mental ill-health.

Despite the growing concern about workplace stress and employees leaving the organization, Owusu and Nkyi (2021) investigated the impact of workplace stress and burnout on turnover intentions among Senior High School teachers in the Cape Coast Metropolis, Ghana. Using a descriptive approach with 542 teachers, the Pearson Product Moment Correlation Coefficient and Regression analysis were used for the analysis. Results of their study showed that both occupational stress and burnout had a statistically positive significant impact on turnover intention with occupational stress having a more predictive ability on turnover intention. This means that when individuals stress at the workplace rise, so do their intentions to leave the organization.

To identify and explore the influence of job stress on job satisfaction among personnel of the Ghana Police Service, Gyamfi (2014), conveniently sampled 335 personnel in his study. The convenient sampling technique was employed because police work involves more movements in and out of stations and therefore the technique involves the use of the available subjects in the stations. The dimensions of job stress on job satisfaction used in the study were role ambiguity, physical environment, role overload, supervisor support and coworker support. After the analysis, results showed a significant and negative relationship between role overload and job satisfaction as well as a significant positive association between coworker support and job satisfaction among Ghana Police officers. The other facets did not prove significant in the analysis. Based on the results, it was suggested that to improve job satisfaction in policing, it is necessary to take a critical look at job roles and improve social support among police officers. However, the limitations of the research included the consideration of only a few job stressors and the use of the correlational study which does not help develop inferences based on causality.

One way to handle the issue of turnover is to create interventions that facilitate retention and ameliorate stress in the organizations. Such techniques necessitate a deep grasp of workplace characteristics that inspire employees to stay on the job. Given this, AbuAlRub and Al-Zaru (2008) researched job stress, job performance and intention to stay at work among nurses in Jordan. The sample of their study conveniently carried out involved 206 participants who completed a structured questionnaire. The correlation analysis indicated that there was a significant negative link between job stress and the level of intention to stay. As a result, nurses with a lower degree of workplace stress had a stronger intention to continue at work than nurses with a higher level of job stress.

The observations made by AbuAlRub and Al-Zaru were confirmed in a study by Sharif et al. (2016) who examined the effect of job stress and intention to stay of personnel of the Emergency Medical Services (EMS). Using the descriptive-analytical study, 200 employees (N = 200) were selected using the stratified sampling technique. Data analyses produced results that indicated that there was an inverse correlation between stress and intention to stay in employees and a positive correlation between dimensions of job stress.

In a study to explore occupational stress and turnover intention, Mosadeghrad (2013) employed cross-sectional research and a validated questionnaire to collect data from 296 nurses in Isfahan, Iran. Inadequate compensation, workplace inequality, work overload, staff shortages, lack of promotion, job insecurity, and a lack of management assistance were recognized as important contributors to workplace stress. Additionally, workplace stress was significant and positively related to turnover intention.

Kaewboonchoo et al. (2014) obtained evidence that suggests that job stress is an important variable that explains intent to stay. The researchers used a self-administered questionnaire for data collection from 514 female nurses who had worked full time for at least a year. Multiple linear regression analysis was conducted to find factors connected to intent to stay at work using the Job Content Questionnaire (Thai version). According to their findings, 17.5% and 22.4% of employees reported significant levels of stress and poor willingness to continue at work respectively. Only supervisor support was significantly associated with intention to stay at work among nurses with stressful jobs, while coworker support was strongly correlated with intent to stay at work among nurses with active jobs.

Karatepe (2013) evaluated the aforementioned relationships using structural equation modeling (SEM) on data collected from 110 full-time frontline hotel workers and their managers.

Work overload, work-family conflict, and family-work conflict were examined as mediators of emotional exhaustion on workplace embeddedness and job performance in the study. Results of SEM demonstrated that work overload, work-family conflict, family-work conflict were important determinants of emotional exhaustion. As a consequence of the study, emotional exhaustion had an unfavourable impact on job embeddedness and job performance. Apart from supporting the mediating hypothesis, the data indicated that all standardized direct and indirect effects were statistically significant, supporting all hypotheses. Emotional exhaustion according to the findings decreased job embeddedness and tampered with high-quality service delivery performance. Additionally, employees who were emotionally exhausted showed discomfort as an affective response and were less enmeshed in their jobs.

Vong et al. (2018) also examined the moderating effect of organizational climate in the association between work stress and intent to stay in their research in Macua's business community in China. During the data gathering process, a non-probability sampling design was utilized. Results indicated that stress at the workplace was significant and inversely associated with intent to stay which implies that as job stress rises, the propensity of workers to remain with the organization reduces. Additionally, moderation analysis was conducted and it came out that organizational climate moderated the link between job stress and intent to stay. Using a schematic representation to illustrate this effect, the organizational climate was split into two exhaustive subgroups (perceived positive organizational climate and perceived negative organizational climate) based on the respondent evaluation. In both subgroups, there was a significant inverse association between job stress and intent to stay, with the perceived negative organizational climate having a significant negative effect and the perceived positive organizational climate having a weak and non-significant correlation. Based on these findings, stressed workers who

identified a negative or unsupportive organizational climate had a significantly lower willingness to stay with their employers than similarly stressed individuals who highlighted a positive or supportive organizational climate. Their findings supported widely held beliefs that workplace stress has a negative impact on employees' intent to stay, whereas a supportive organizational climate encourages employees to stay.

Not all stressors are recognized to be harmful (hindrance stressors) and yield negative outcomes. Some stressors (challenge stressors) have been identified to be a motivator and precipitates positive outcomes. In a study of 696 learners, LePine et al. (2004) investigated challenge and hindrance stress and their relationships with exhaustion, motivation to learn, and performance. The researchers found that stress associated with challenges in the learning environment has a positive relationship with learning performance and that stress associated with hindrances in the learning environment had a negative relationship with learning performance. They also found evidence that both forms of stress were positively related to exhaustion, and exhaustion was negatively related to learning performance. Furthermore, hindrance stress was negatively related to motivation to learn and challenge stress was positively related to motivation to learn, and motivation to learn was positively related to learning performance.

However, to the extent that the Job Demand Resource model explains how occupational stress and its dimensions affect organizational outcomes, it is rational to expect in this current study that occupational stress experienced by personnel/ratings will influence their job embeddedness. As a result, this prediction is made in the current study in the hopes that establishing this fact will aid and give more explanation to this issue.

### 2.3.2 Job satisfaction and its moderation effect

“Most studies assume that employee retention strategies can affect job satisfaction; therefore, organizations that need to retain their employees need to adopt policies and practices that lead to satisfaction on the job” (Ahmed et al., 2009 cited in Kwenin et al., 2013).

Job satisfaction may influence not only productivity but also have an interaction between other elements like stress and job embeddedness. Studies have found a link between the influences of job satisfaction on employee retention. For example, a study conducted by Chiang et al. (2005) in the hotel industry investigated the impact of job satisfaction on intent to stay. The results showed that job satisfaction and training had a relationship with intent to stay with job satisfaction appearing to be the only significant positive predictor of intention to stay.

A study by Lee and Lee (2008) on job satisfaction, organizational immersion, and recognition on internal marketing of the Contract Foodservice Management Company employees revealed that an organizations immersion is heavily influenced by job satisfaction and high internal marketing. The study proposed delegation of power, supporting management, training, welfare, compensation which were likely to heighten organizational immersion and job satisfaction of employees.

Mrayyan (2005) in her research on job satisfaction and retention among nurses, aimed at identifying comparing both public and private variables of Jordanian nurses job satisfaction and retention. She was motivated to conduct her research on the basis that there was little research on job satisfaction and retention in Jordan. Using a descriptive design guided by surveys, the study used 438 nurses who were conveniently sampled. Findings of the study showed that nurse job satisfaction was correlated with nurse retention. Results of the study indicated that nurses were moderately satisfied in their jobs with nurses in private hospitals having more satisfaction than in

public hospitals. Nurses in private hospitals according to the results anticipated to retain their jobs longer than nurses in public hospitals. The researcher reiterated that there were few variables in the retention study and therefore tools need to be expanded to cover a wider range of variables that may affect nurse retention. Since the study was cross-sectional, it only provided a snapshot of health workers perspectives on the study variable at one point in time making it difficult to examine the causal relationships between variables. It was recommended that authorities to increase motivation and job satisfaction should emphasize an in serving training, supportive supervision, career development, enabling environment through listening to and acting on staff problems and priorities as well as encouraging team building.

Job satisfaction and motivation have been recognized as critical factors for workers retention and turnover in countries with low and middle-income levels. In a study to identify the effects of health worker motivation and job satisfaction on turnover intention, Bonenberger et al. (2014) used a cross-sectional study and sampled 256 health workers from several staff categories (nurses, doctors, pharmacists, allied health workers) in three districts of the Eastern Region in Ghana. Findings indicated that 69% of respondents reported turnover intentions while job satisfaction and motivation were significantly linked with turnover intention with higher levels of both reducing the risk of health workers having turnover intentions.

“Several studies have been carried out on employee retention in developing countries. Studies have been focused on health and teaching staff especially in Ghana” (Dovlo, 2003 cited in Enu-Kwesi et al., 2014). A study by Enu-Kwesi et al. (2014) to assess the determinants of employee retention adopted a quantitative research design specifically a correlational design to explain the relationship between factors that influence retention based on a sample of 98 banking staff of the Ghana Commercial Bank (GCB) in Kumasi. Findings indicated that two factors

(policies and job satisfaction) emerged as the most statistically significant predictors of employee retention. It was, therefore, suggested that concerning policymaking, management of GCB (Kumasi branch) should focus on the review of the existing benefits available like gain sharing and employee recognition schemes.

High occurrence of agitation for improved pay and other conditions are experienced by workers in Ghana. A study was conducted by Addai et al. (2018) to assess the influence of job satisfaction and organizational justice as predictors of turnover intentions among teachers in the Offinso South District of Ghana. 114 teachers were conveniently selected to complete the survey. Results indicated that job satisfaction and organizational justice negatively correlated with turnover intentions. Additionally, pay which is a facet of job satisfaction had a more predictive ability to turnover intention.

In a study to investigate the relationship between job satisfaction, distributive justice and absence legitimacy, Addae and Boso (2020) drawing from the institutional theory, employed a convenience sampling technique to collect data from 298 workers in private and public manufacturing and service sectors in Ghana. It was established that job satisfaction and perceived distributive justice were significantly related to absence legitimacy. Employees who felt unfairness and dissatisfaction with their occupations were more inclined to see absenteeism as acceptable behaviour. The study contributed to absenteeism research and additionally examined the cognitions associated with the behaviour which offered insight into how workers perceptions of the legitimacy of absences affect attitudinal factors such as job satisfaction.

Employee retention has been influential in Human Resource Management activity and this helps the organization in its quest to be productive. Kwenin et al. (2013) assessed the influence of job satisfaction, human resource policies and rewards on workers intention to stay with Vodafone

Ghana Limited. Data was collected using both primary (semi-structured questionnaire) and secondary sources (document review through organizational reports and company magazines). 136 workers took part in the study and results indicated that job satisfaction, reward and human resource policies had a positive and statistically significant association with employee retention.

With the moderation effect of job satisfaction, studies conducted by Darat et al. (2017) aimed to examine the impact of occupational factors on salesperson deviance. Due to the mixed and unclear result of the effect of job embeddedness on counterproductive work behaviours, job satisfaction was additionally explored in the relationship. The study resulted in an interaction effect being observed in job embeddedness and satisfaction on organizational deviance. Thus, job satisfaction moderated the relationship between job embeddedness and organizational deviance such that high job satisfaction weakened the association between job embeddedness and organizational deviance according to the researchers' findings. Managerial implication provided by the researchers indicated that sales managers should employ proactivity in ameliorating salesperson deviant behaviours which could be achieved through a variety of methods including assertive communication, effective mentoring, and providing realistic job previews before hiring to enhance salespersons satisfaction.

A study was conducted by Dechawatanapaisal (2018) to examine the associations between HR practices, organizational job embeddedness, job satisfaction, and quit intention. Evaluating the interaction effect of job satisfaction on the job embeddedness, turnover associations as well as the perception of HR practices as predictors of embeddedness in the organization was the aim of the research. The investigation found a substantial positive association between all HR procedures and job embeddedness after collecting data from 1,028 accountants in various disciplines from one of Thailand's major firms. In addition, regression analysis was utilized to examine the moderation

effect of job satisfaction and job embeddedness on turnover. When the interaction terms between job embeddedness and job satisfaction were added to the equation, the findings revealed that job satisfaction moderated the association between organizational embeddedness and quit intention such that the relationship was weakened when job satisfaction was high. The result of the moderation effect, therefore, supported the hypothesis stated by the researcher that job satisfaction moderates the inverse association between organizational job embeddedness and quit intention. The interaction term was further examined through the slope analysis and results also showed that organizational job embeddedness and quit intention reduced when job satisfaction was high. In other words, less-integrated employees who are dissatisfied with their jobs are more likely to express the desire to leave. However, when it came to intention to leave, there was no difference among highly enmeshed workers. This backs up the COR theory, which states that employees are driven to preserve key resources and will respond to a shift in job satisfaction. Employees may feel less tied to their current organization as their job satisfaction declines, and they may be inclined to leave to avoid further deterioration.

Supportive leaders are those who are aware of their tasks and can motivate and monitor their subordinates efficiently. “Supportive leaders create a conducive working environment to enhance respect, trust, cooperation, and emotional support” (Draft, 2005 cited in Khalid et al., 2012). As part of their research, Khalid et al. (2012) looked at the moderating influence of supportive leadership on the connection between work stress and job performance. Using the convenience sampling technique and a well-developed questionnaire, completed data was collected from 169 employees from four educational institutions comprising section heads, coordinators, teachers, and other administrative staff serving in those institutions. According to the findings, supportive leadership had a detrimental impact on occupational stress and job

performance. Evidence from the results also indicated that supportive leadership had a moderation effect on the relationship between job stress and job performance such that supportive leadership buffered the link between stress and performance in the organization. As a result of their research, job satisfaction toward favorable working settings, as well as supervisors that give the necessary support and resources, buffered and minimized workplace stress and improved performance.

Healey and McKay (2000) investigated the links between nursing work-related stressors and coping methods, as well as their effects on nurses' job satisfaction and mood disturbances. The researchers also wanted to see if job satisfaction could buffer the stress–mood link. Using a sample of 129 qualified Australian nurses, data was collected using open-ended standardized questionnaires. Ethical clearance was obtained from both the University and hospital ethics committee after which participants' consent was obtained before participation in the research. Using the Statistical Package for the Social Sciences (SPSS), to run the analyses, the combined predictor variables in the coping humor analysis accounted for only 9% variance, and no main or buffering effects for humor coping on the relationship between stress and mood disturbance were found. A significant main impact for job satisfaction was found in the work satisfaction analysis, but there was no interaction effect with stress because the combined predictor factors only accounted for 17% of variance. Lower levels of stress and mood disturbances were as a result of higher levels of job satisfaction according to the study result, but a closer look at the impact of job satisfaction on the relationship between stress and mood disturbance revealed a major but not a moderating effect. However, when combined with higher levels of stress, being satisfied with one's job does not seem to be enough to counteract the negative emotional effects of stress.

Job satisfaction was examined in a similar study by Woo et al. (2017) as a moderator in the relationship between burnout and scholarly productivity among counselling faculty in the United

States. The sample size was 251 full-time faculty members working in counselling faculty at American universities, with 62.5% of them being female and 37.5% being male. Participants were recruited via e-mail after Institutional Review Board approval. After controlling for some confounding variables, hierarchical regression was used to examine the moderator effect of job satisfaction on the relationship between burnout and scholarly productivity. Assumption testing was followed by the hierarchical multiple regressions test for conditions. Results indicated that the relationship between job satisfaction and academic productivity does not significantly affect the degree of academic productivity beyond the confounding variables. However, it does indicate that job satisfaction may have an interaction with burnout. There was an additional 4.3% variance in scholarly productivity due to burnout and work satisfaction interaction after dealing with the confounding variables. When other variables were taken into account, the burnout and work satisfaction relationship was found to be a significant predictor of scholarly productivity. Burnout was found to be a major predictor of scholarly production, whereas work satisfaction attenuated the association between burnout and scholarly productivity. Although job satisfaction may not lead to a high level of academic productivity, it still moderated and buffered the impact of job burnout on scholarly productivity. The recommendation proposed by the researcher indicated that future research should address the longitudinal study, diversity, the effects of other demographic confounding variables (gender, job setting, and tenure status), and other variables that influence productivity, such as personality characteristics.

Nonetheless, the evidence presented in these studies about putative links between job satisfaction and job embeddedness provides an empirical foundation for investigating these relationships. As a result, the current study focused on expanding on these past studies' underpinnings, with the idea that job satisfaction would be linked to job embeddedness. The study

also aimed to find out if job satisfaction could moderate the relationship between job stress and job embeddedness.

### **2.3.3 Organizational commitment and its moderation effect**

Individuals with higher levels of commitment according to Meyer and Allen (1991) have a stronger sense of belonging and an improved motivation to achieve their goals. This explains why they tend to remain loyal to an organization. The success of organizations depends on the commitment levels of employees' desire and willingness to contribute towards the organization. Thus, committed employees have the desire and willingness to contribute to the success of an organization. The facets of organizational commitment which is affective, normative and continuance commitment all contribute to strengthening the likelihood that employee will remain in the organization. Employees with strong affective bonds remain because they want to do so. Normatively committed workers stay because they feel obligated to, while strong continuance committed workers stay because they feel compelled to.

High employee turnover rates, along with periodic strikes by Ghanaian workers, have become a major challenge that requires immediate solutions. In their study, Mensah and Kosi (2016) examined the influence of organizational commitment on turnover intentions of medical laboratory scientists in some health facilities in Ghana. 141 subjects were drawn from various public health institutions. Using standardized instruments, results revealed that organizational commitment significantly predicted turnover intentions. Additionally, the dimensions of organizational commitment were tested against turnover intention and the result indicated that continuance and normative commitment had a positive and negative significant contribution to turnover intentions respectively. Affective commitment, on the other hand, did not appear to be a

major predictor of turnover intentions. A major challenge in the study was a result of a small sample size of participants which could limit the generalizability of the research.

Employee retention is influenced by a variety of factors that have an impact on employee loyalty to the company. To assess the relationship between retention and organizational commitment, Gyamfi (2019) in his study sampled 120 faculty members from public universities in Ghana. Using the quantitative and cross-sectional design, results disclosed that the commitment of the faculty members to their institutions was high and associated with retention. It was also discovered that the level of organizational commitment and faculty salary had a positive and significant link. Female faculty members also recorded more satisfaction with a higher normative commitment.

In a study to examine the impact of organizational commitment on job satisfaction and employee retention, Anis et al. (2011) utilized the non-probability sampling method and collected data from 320 frontline employees from six pharmaceutical companies in Pakistan using survey questionnaires. Employee retention and work happiness can be improved if employees have high organizational commitment, according to the study. The researchers used questions adapted from previous studies to maintain the content and construct validity of the survey instrument. The independent and dependent variables were all measured at 5 point Likert scale and using the structural equation model, results indicated that there was a positive and statistically significant relationship between all the variables with a relationship between organizational commitment and employee retention accounting for a .385 beta value. This depicts that a degree change in organizational commitment brought about 39% in employee retention as compared to job satisfaction which accounted for a 20% change in employee retention.

Depending on where the soldier was in his enlistment period, different factors contributed to attrition, according to Holtom et al. (2014). Attrition was initially accredited mostly to medical or performance reasons, but after six months, moral character issues began to account for a larger share of the attrition. Additionally, deviant behaviour began to predict more attrition in the 4-year enlistment period. Using survey data from 643 first and second-year cadets of the U.S Air Force, the researchers examined the relative strength of job attitudes and job embeddedness in predicting turnover. Using 5-point Likert scales (1 = strongly disagree to 5= strongly agree) for all the variables (voluntary turnover, organizational commitment, job embeddedness, P-O fit), they hypothesized that all the dimensions of organizational commitment will be significant and negatively relate to voluntary turnover. Employing the revised (18 items) organizational commitment measure by Meyer and Allen (1997), a negative association was identified between the facets of organizational commitment and turnover with only affective recording a significant relationship. Additionally, examination of the predictors of turnover including organizational commitment and job embeddedness revealed a significant and positive association between affective commitment and both JE organization and JE community. Normative commitment also recorded significant and positive relationships with both organizational and community facets of the job embeddedness with only Continuance Commitment recording a significant but negative relationship with both the JE organization and JE community. Overall, the hypotheses were tested, and the results provided vital insight into the relative impact of many antecedents of turnover among US Military Academy cadets. As a result, military leaders can reduce cadet attrition by boosting critical elements such as affective organizational commitment through enhanced selection and socialization, according to the relative weighting of various categories. (Holtom et al., 2014).

In a study on HR activities as antecedents of organizational commitment and employee retention, Mahal (2012) hypothesized that organizational commitment influences employee retention. Using participants of management and permanent employees from five Indian firms, including education, hospitals, pharmaceutical, banking, and a few government offices, 100 questions were answered by employees, yielding a response rate of 76.92%. With an average value of 6.18, workers of the five origins showed a high level of commitment to the organization. Also, organizational commitment had a significant positive link with organizational practices and was negatively related to employee turnover. Thus, organizational commitment influenced employee retention as hypothesized earlier. This demonstrates that corporate commitment is a force that connects HR practices and is the backbone of modern human resource management philosophy.

Similar studies by Hartmann and Bambacas (2000) was conducted in an Australian tertiary education set up with 108 sample size of casual staff. Their paper examined the utility of the Allen and Meyer (1990) theory and measures of organizational commitment as these apply to their subjects and their intentions to leave their organization. They hypothesized that intentions to leave will negatively be related to the three dimensions of commitment. Using the three-part commitment scale by Allen and Meyer (1990) and utilizing the path analysis to examine the relationship, it was recorded affective and normative commitments were significant and negatively correlated to intention to quit with continuance commitment recording a positive and not significant relationship with the intention to quit. This makes sense that casual staff would be most concerned about the benefits to them and the availability of other alternatives rather than less tangible aspects such as their feelings about or sense of obligation to the organization.

To determine the impact of compensation and organizational commitment on job satisfaction and retention, Pertiwi and Supartha (2021) sampled 45 participants with saturated

sample collection techniques using a questionnaire while descriptive statistical analysis and path analysis were utilized. Results indicated that job satisfaction and organizational commitment had a positive and significant impact on employee retention. However, the study had a problem with generalizability and due to the covid-19 pandemic, researchers had a challenge of reaching participants in companies. The research also had limited variables that served as indicators that affect job satisfaction and employee retention.

In a study conducted by Park and Junk (2016), 199 nurses in Busan, Korea were asked about their retention intentions based on their sense of calling, job satisfaction, and organizational commitment. Using the required statistical analysis, the result indicated that organizational commitment was significant and correlated positively with retention intention.

Looking at how some of the dimensions of organizational commitment affects outcomes like turnover, Sow et al. (2016) used data from 92 healthcare internal auditors in the United States to conduct a quantitative study with a correlational design to investigate the association between normative commitment and turnover intention. Correlational analysis revealed a negative and significant association between normative commitment and turnover intention. Thus, the greater the normative commitment, the lower the turnover intention.

A study by Nguyen et al. (2014) was conducted in Vietnam with the purpose to examine the interaction effects of dual organizational commitment on retention in international assignments. There were 471 participants in the study who were Western expatriates working full-time for subsidiaries of international firms in a variety of industries including textiles and garments, food nutrition and personal care, and service industries. Using the hierarchical regression analysis and controlling for six demographic factors, the result indicated that all dimensions of commitment significantly predicted retention with components of parent company

commitment having a more predictive ability than local operation commitment i.e. in comparison to the local operation commitments, the parent company commitments had a greater impact on retention. Thus, the components of parent company commitment were more retention predictors than the components of local operation commitments. Additionally, continuance commitment was a stronger predictor of retention according to the regression analysis conducted. So in summary, expats strongly identify with and felt connected to the two foci of the study (parent company and local operation company).

A study conducted by Satoh et al. (2016) indicated factors that promote nurses' intention to continue to stay in their job with occupational commitment as a factor worthy of attention. Using a sample of 1,531 staff nurses, descriptive statistics and correlation analysis between the variables were calculated. The analysis used indicated a positive relationship between all the facets of occupational commitment with continuance commitment recording the highest correlation coefficient followed by affective commitment and normative commitment.

Commitment has not only been identified to have a relationship with outcomes such as retention or job embeddedness, but it has also played a critical role as a moderator. In a study to explore the moderating effect of organizational commitment, Norris (2004) conducted a study to investigate the association between workplace stressors and turnover intentions in the military. 2,748 members of the Canadian Army, Navy and Air force were drawn to participate in the study. The survey was granted ethical approval by other research ethics committees of the Canadian Forces and that of the University where the researcher studied. The survey was then administered electronically and posted on the Canadian Forces Chief of the Maritime Staff Intranet web page for participants to access. Correlation analysis indicated that all the dimensions of organizational commitment were significant and negatively correlated to the turnover measures. To test the

hypothesis that affective, continuance and normative commitment will moderate the relationship of workplace stressors and turnover intentions, interaction terms of the moderator variable by the individual workplace stressors were entered in the equation and results indicated affective, continuance, and normative commitment did not moderate the link between workplace stressors and turnover intentions. Thus, the prediction that all the facets of commitment would moderate the association between workplace stressors and turnover intentions was not supported.

The COR theory clarifies why people try to accumulate and replenish what they perceive to be valuable resources, and why employees may also invest to obtain or create more resources to maximize their returns because resources are consistent with positive outcomes. It is, therefore, reasonable to expect in this study that organizational commitment would predict positive consequences like job embeddedness and additionally moderate the relationship between occupational stress and job embeddedness. This prediction was made in the current investigation in the hopes that establishing this fact would help to clarify the situation.

#### **2.4 Statement of Hypotheses**

1. A significant negative relationship will exist between occupational stress and job embeddedness.
- 2a. A significant positive relationship will exist between job satisfaction and job embeddedness.
- 2b. There will be a significant positive relationship between organizational commitment and job embeddedness.
3. Occupational stress will account for more variance in job embeddedness than the job attitudes (job satisfaction and organizational commitment).

4. The relationship between occupational stress and job embeddedness will be moderated by job satisfaction such that the relationship is weaker when job satisfaction is high.
5. Organizational commitment will moderate the relationship between occupational stress and job embeddedness such that the relationship is weaker when organizational commitment is high.

### CONCEPTUAL FRAMEWORK

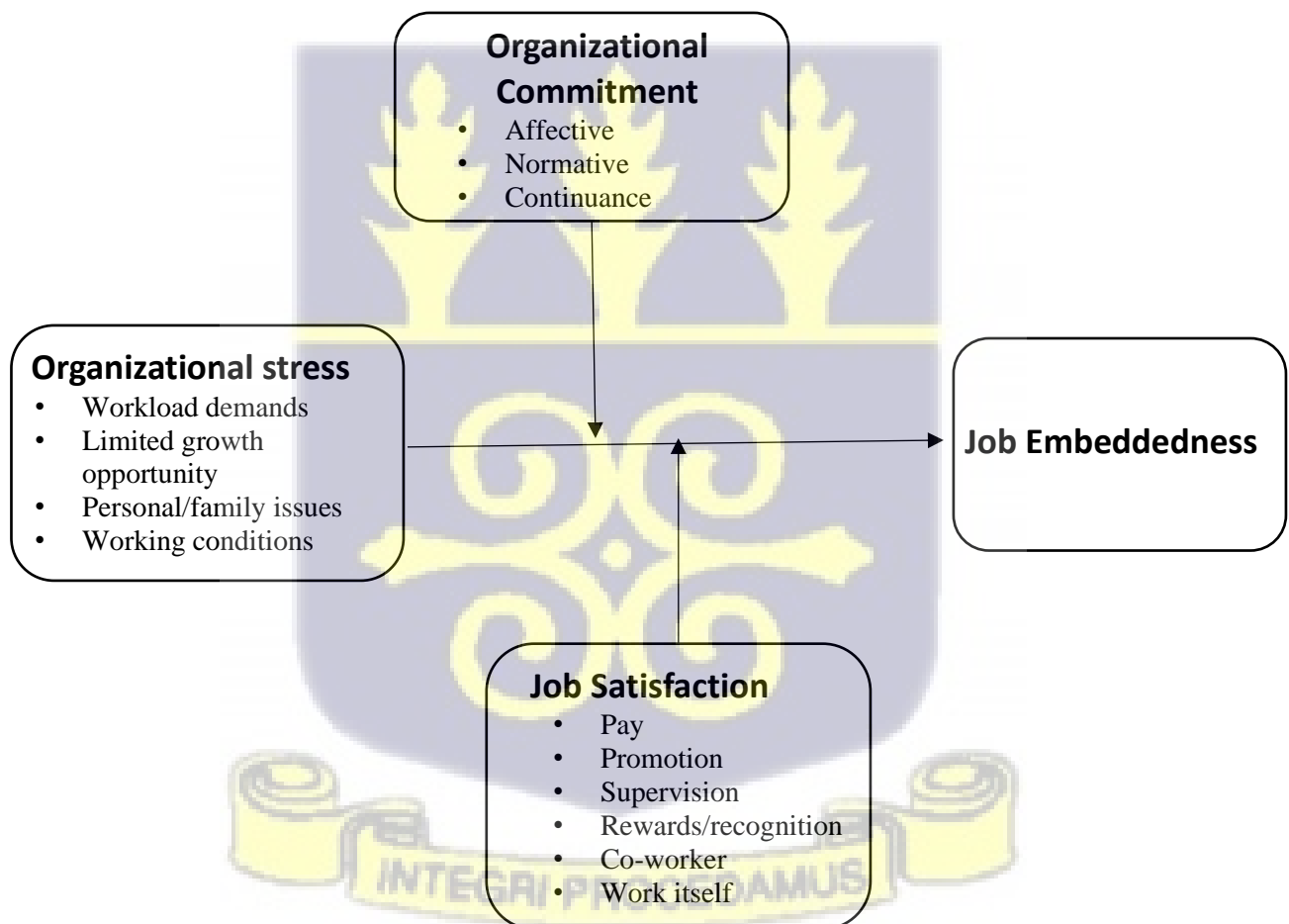


Figure 3. Model showing hypothesized relationships between study variables.

Occupational stress, job satisfaction, and organizational commitment will have a substantial association with job embeddedness, according to the proposed model. Additionally, the link between occupational stress and job embeddedness will be moderated by job satisfaction and organizational commitment such that the relationship will be weakened when the job satisfaction and organizational commitment levels are high.

## 2.5 Operational Definitions

**High Command:** Personnel that consist of the most senior officers in a countries Armed Forces.

**Job Embeddedness:** It is the organizations' entanglement with its employees as measured by the global job embeddedness scale (Crossley, 2007)

**Job Satisfaction:** The positive feeling and contentedness towards one's job resulting from an evaluation of its characteristics as measured using six facets (24 items) out of 9 facets (36 items) of the Job Satisfaction Survey (Spector, 1997).

**Occupational Stress:** Characteristics of the job environment that put workers at risk either in excessive demands or insufficient resources to meet their needs as assessed by the Work-Specific Control Problems Scale (Remondet & Hansson, 1991).

**Organizational Commitment:** Identifying and believing in an organization and its goals, while wishing to maintain membership as measured using 18 items revised version of the Affective, Normative and Continuance Commitment Scale (Meyer and Allen, 1997).

**Ratings:** The non-commissioned officers or personnel of other rank status of the Navy.

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

This chapter explains the research strategy used to carry out this investigation. Details on the population, sample and sampling techniques, research setting, research design as well as materials that would be used to collect data are provided. There is also a presentation of the pilot study and process through which data was gathered as well as ethical issues that were considered.

#### 3.2 Research setting

The study was conducted in units and commands of Ghana Navy establishments including the Naval Headquarters, Western Naval Command, Eastern Naval Command, and the Navy Training Command in Burma Camp (Accra), Sekondi, Tema, and Sogakope (Nutekpor) respectively. Currently, the Naval Headquarters is the administrative hub of the Ghana Navy. The Western Naval Command (WNC) also known as the home of the Ghana Navy is made of several units such as the Fleet (FOF), Naval Base Sekondi (NB Sek), School of Marine Engineering and Combat System (SMECS), Naval Dockyard (NAVDOCK), Ghana Navy Store Depot (GNSD), and WNC band. The Eastern Naval Command (ENC) is made of units such as Naval Base Tema (NB Tema), Leadership Training School (LTS), ENC band and the fleet detachments. The Naval Training Command currently accommodates units such as the Navy Recruit Training School (NRTS), Naval Base Nutekpor (NB Nutekpor), School of Maritime and Operation Systems (SMOPS) and Supply Application School (SAS). A majority of personnel/ratings are based in these units and commands of the Ghana Navy, which were chosen as the research setting. As a result, personnel and information essential to accomplish the study's goal were readily available

and accessible. Data was therefore collected in the units of personnel that granted access for the data collection.

### **3.3 Research Design**

For this study, the non-experimental cross-sectional survey design was adopted since the aim was to collect detailed and factual information from personnel from different units, rank, trade, age, educational level and other characteristics at a point in time. This research design is one of the most effective approaches for collecting data for quantitative analysis. On account of the desire to gather evidence from a large number of personnel and determine the association among various factors, the quantitative and correlational research approach, was implemented. Personnel were required to fill out questionnaires that asked them about their perceptions as part of the research. Surveys were provided to a sample of participants and the information obtained allowed for the generalization of findings from the responses given by the sample.

### **3.4 Population**

The study targeted ratings of the Ghana Navy. Ratings in this study is used interchangeably with personnel. The reason for targeting ratings is that they form a larger portion of soldiers in the Ghana Navy and getting a larger sample size is likely. Issues of ratings attrition over the few decades have been identified to hinder the smooth administration of human resource in the Ghana Navy. For example, statistics from the Administration Department of the Ghana Navy examined trends in early voluntary release and AWOL incidences indicating a total number of approximately over 100 personnel leaving the service between 2016 and 2019. The various units and commands of the Ghana Navy were uniquely chosen because they relatively have a higher concentration of ratings. This allows the researcher to select a sample from a bigger population, potentially resulting in a larger sample size. Other factors such as cost, proximity, practicability, and acknowledging

the time-bound of the research made the research more appropriate to be conducted among ratings in the Ghana Navy only.

### 3.5 Sample

A sample is part of the population of individuals or objects from whom the researcher collects information. Thus, it can be viewed as the subset of a population from which information is obtained. In this study, a sample from the population was used to make assumptions about the characteristics of the population. Cohen (1992) indicated that a sample size of 85 and 116 is required to conduct correlational and multiple regression analysis respectively. Also, the suitable sample size formula appropriate for regression analysis according to Tabachnick and Fidell (2013), is given as: “ $N > 50 + 8M$  (where  $M$  is the number of independent variables in the study)”. Since the current research has one focal independent variable and two other independent variables serving as moderators, the implication was that a sample of seventy-four (74) personnel and above would be appropriate [ $50 + 8(3) = 74$ ].

A total sample of five hundred (500) ratings was targeted to respond to the questionnaire. Out of five hundred and twenty (520) questionnaires distributed, four hundred and eighty-five (485) were returned. However, twenty (29) were uncompleted as they did not respond to some measures and had to be excluded from the analyses which resulted in a final sample of four hundred and fifty-six (456) indicating a response rate of 87.69%. Table 1 summarizes the demographic characteristics of the study.



**Table 1. Summary of Demographic Characteristics of the Sample**

Demographics		Frequency	Percentage (%)
Sex	Male	335	73.5
	Female	121	26.5
Age	18-25	51	11.2
	26-30	176	38.6
	31-35	136	29.8
	36-40	52	11.4
	41-50	39	8.6
	51 above	2	0.4
Rank	OS	20	4.4
	AB2	50	11.0
	AB1	193	42.3
	LS	80	17.5
	PO2	33	7.2
	PO1	57	12.5
	CPO2	10	2.2
	CPO1 above	13	2.9
Education	SHS/ equivalent	342	75.0
	Diploma/HND	75	16.4
	Degree	39	8.6
Marital Status	Single	209	45.8
	Married	241	52.9
	Divorced	4	0.9
	Widowed	2	0.4
Unit	NHQ	75	16.4
	WNC	79	17.3
	ENC	147	32.2
	FOF	94	20.6
	NAVTRAC	61	13.4
Trade/Branch	Executive	128	28.1
	Supply & Secretariat	237	52.0
	Technical	72	15.8
	Misc	19	4.2

From Table 1, 335 of the 456 respondents were male, making up 73.5% of the sample, while 121 were female, making up 26.5%. The sample was inadequate and did not favour gender-balanced assessment of the results.

In terms of the age of respondents, age 26 to 30 years (38.6%) recorded the highest number of personnel in the study and age 50 above recorded the least number of participants (0.4%).

For participants rank, the largest respondents were Able Seamen Class 1 representing 42.3% followed by Leading Seamen (17.5%), Petty Officer Class 1 (12.5%), Able Seamen Class 2 (11.0%), Petty Officer Class 2 (7.2%), followed by Ordinary Seamen (4.4%) with Chief Petty Officer Class 1 and Chief Petty Officer Class 2 recording the least number of participants representing 2.9% and 2.2% respectively of the total number of participants.

342 (75.0%) participants with Senior High School or equivalent were most represented, followed by those with Diploma/HND (16.4%) while Degree holders had the least representation (8.6%).

Furthermore, 209 participants were single representing 45.8% and 241 were married representing 52.9%.

With regards to the unit of personnel, 75 participants were in Naval Headquarters representing 16.4%, 79 (17.3%) in Western Naval Command, 147 (32.2%) in Eastern Naval Command, 94 (20.6%) with the fleet, and 61 (13.4%) in Naval Training Command.

Also, the highest of participants with regards to trade are in the Supply and Secretariat branch (237 respondents) representing 52%, 128 (28.1%) are with the Executive branch, 72 (15.8%) with the Technical branch with the Miscellaneous recording the least representation of 19 respondents (4.2%).

### **3.6 Sampling Technique**

Non-probability sampling strategies, such as convenient and purposive sampling techniques were employed to choose the population and respondents for this study. This approach utilizes willing and accessible participants to partake in the research. As a result of the technique's cost-effectiveness, a large sample of the target population were conveniently collected very quickly and economically. Also, the purposeful sampling strategy was employed to choose unique study participants, since this research is primarily focused on only ratings of the Ghana Navy. Additionally, only personnel who consented to partake in the research were engaged since not all personnel were interested in participating.

### **3.7 Inclusion and Exclusion Criteria**

The Ghana Armed Forces (GAF) is a unified force consisting of the Ghana Army, Ghana Navy and the Ghana Air Force. The study used personnel of other rank<sup>3</sup> status also known as ratings in the Ghana Navy who operate only in naval establishments. Personnel in the Ghana Army and Ghana Air Force did not fall within the target population because the researcher was only interested in ratings of the Ghana Navy.

### **3.8 Instruments/Materials/Measures**

Personnel data was collected by the use of questionnaires. Items on the questionnaires elicited different types of information. The instrument was categorized into five sections. The first section (Section A) gathered data on demographic features such as sex, age, rank, education, marital status, unit, and trade of personnel. Sections B to E had items that measured the dependent variable (Job embeddedness), the independent variable (Occupational Stress), and the two moderating variables (Job Satisfaction and Organizational Commitments) as well as their

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<sup>3</sup> Other rank is a soldier who is not a commissioned officer.

dimensions. Instructions on the purpose of each item and response alternatives preceded each section. All responses were on a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). Numerical weights of various responses selected by participants were summed to determine the scoring pattern.

### **3.8.1 Job Embeddedness**

The global measure of the job embeddedness scale was used to collect data on forces that bind personnel to their job. Examining how job embeddedness may be incorporated into a traditional model of voluntary turnover, this scale was developed by Crossley et al. (2007) and was a reflective measure of job embeddedness that overcomes important limitations and served as a companion to the original composite measure. The scale had seven (7) items with one item reversely scored. Sample items on the scale include: *“I feel attached to this organization”* and *“it would be easy for me to leave this organization”*. The average value was 20.46 with a minimum and maximum value of 9 and 32 respectively (see Table 3). Scores above the means score indicate high job embeddedness and scores below the mean score of the scale indicate low job embeddedness among personnel. Crossley et al. (2007) in the development of the scale produced a Cronbach alpha of 0.89. In a study by Darrat et al. (2016), Cronbach alpha recorded was 0.88. However, Cronbach's alpha was .73 in the current study.

### **3.8.2 Occupational Stress**

The occupational stress was measured using the Work-Specific Control Problems developed by Remondet and Hansson (1991) to assess how personal control is risked and compromised leading to stress and other related problems. Workload demands, limited growth opportunities, personal/family issues, and working conditions are the four dimensions assessed by the scale. These subscales also combine into a composite measure of overall control problems at

work as proposed by the developers. The reliability of the instrument had been tested in previous studies and had a Cronbach's alpha 0.87 for the composite measure of work-related control problems (Abraham & Hansson, 1996). Cronbach's alpha was .88 in this present study. Sample items on this scale are; *"my workload is too heavy"* (workload demands), *"I see no room for growth in my job"* (limited growth opportunities), *"family crises have required that I miss work"* (personal/family crises), and *"I work in a dangerous environment"* (working conditions). The scale has no negative worded item. Minimum and maximum scores ranged from 17 and 68 respectively with an average of 39.21. Diminished control in these incidents is associated with high scores that indicate increased job stress and low scores indicate a high level of control which is associated with decreased job stress.

### 3.8.3 Job Satisfaction

The scale used to measure job satisfaction and its dimensions is the Job Satisfaction Survey developed by Spector (1997). The scale was modified and utilized six job facets (salary, promotion, supervision, co-worker, rewards and work itself) out of the original scale of nine job facets to suit the current study. The Cronbach alpha of 0.89 was recorded in a study by Blau (1999). In the present study, the Cronbach alpha for the composite measure of the scale is .78. Items on the scale include; *"I feel satisfied with my chances for salary increases"*(pay), *"I am satisfied with my chances for promotion"*(promotion), *"I like my supervisor"*(supervision), *"there are few rewards for those who work here"* (rewards), *"my job is enjoyable"* (work itself), and *"I like the people I work with"* (co-workers). Items that were negatively keyed were reversed scored. With an average score of 78.44, the minimum and maximum were 50 and 107 respectively. High scores indicate that personnel have high job satisfaction while low scores indicate low job satisfaction.

### 3.8.4 Organizational Commitment

Meyer and Allen's (1997) revised version of the Organizational Commitment Questionnaire (OCQ) was used to test for commitment and its dimensions among employees. Personnel emotional attachment, identification, and involvement in the organization are measured by the Affective Commitment (AC). The Normative Commitment (NC) reveals the obligation and pressure on personnel to remain in the organization and the Continuance Commitment (CC) subscale measures the cost related to leaving the organization. The scale has 18 items for the composite measure with 6 items for each subscale. The reliability score tested in previous study for the measure are .86, .84, and .78 for AC, CC and NC respectively (Weng et al., 2010). The current study recorded an overall alpha of .82. Items on the scale include: *"I would be very happy to spend the rest of my career with this organization"* (AC), *"I owe a great deal to this organization"* (NC), and *"I feel that I have too few options to consider leaving this organization"* (CC). Negatively worded items were reversely coded. Additionally, the minimum and maximum scores ranged from 33 and 85 respectively with an average of 58.92. Lower scores of the scale indicate low organizational commitment, and higher scores indicate higher organizational commitment of personnel.

### 3.9 Procedure

The study was carried out in two phases after receiving ethical approval from the Departmental Research and Ethics Committee of the Department of Psychology, University of Ghana. Initial data collection tools were piloted, followed by data collection from personnel to be analyzed in the second phase.

### 3.9.1 Pilot Study

There was a test of the instruments used to collect data. Even though standardized scales were used to collect data, it was imperative to pilot the questionnaires. To determine whether the elements on the scales were meaningful for participants, as well as assess their reliabilities, a pretesting of the instruments was carried out. The pilot study was carried out since it could help anticipate potential problems that may arise during the main study. Furthermore, the pilot study was conducted to assess the clarity of items on the scales and to address the possibility of unfamiliar, confusing, and ambiguous items that could make comprehension and interpretation difficult. The sample size for the pilot study was 40 participants drawn from personnel within some units of the Western Naval Command in Sekondi. It was determined that all instruments used in the pilot study were reliable, accurate, and appropriate for use in the main research. The global scale of the Job Embeddedness measure which was used to assess the dependent variable (Job Embeddedness), the Work-Specific Control Problem scale used to measure the independent variable (occupational stress), as well as the Job Satisfaction and the Organizational Commitment Questionnaire scale used to measure the moderating variables (Job Satisfaction and Organizational Commitment) respectively all recorded adequate reliability.

Table 2 below summarizes the outcomes of the reliability in the pilot study.

**Table 2. Summary of Reliability Statistics obtained for the Scales in Pilot Study**

Scale	Number of Items	Alpha
Job Embeddedness	7	.867
Occupational Stress	17	.891
Job Satisfaction	24	.821
Organizational Commitment	18	.829

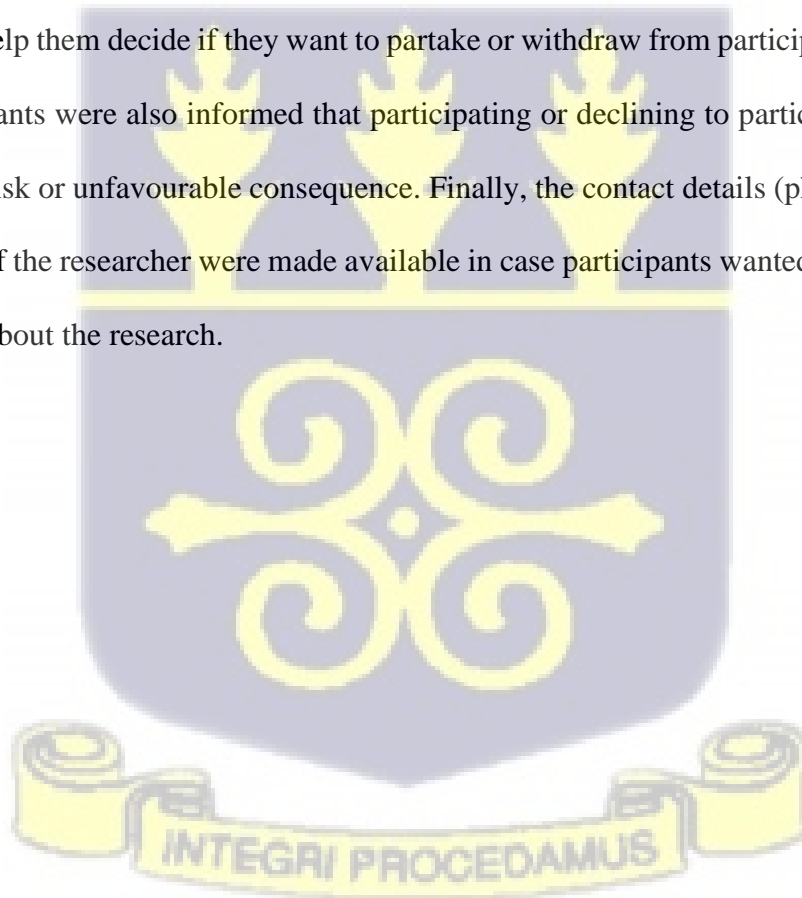
### 3.9.2 Main Study

An introductory letter from the Department of Psychology, University of Ghana after ethical clearance was sent to the Director Naval Training at the Naval Headquarters, Burma Camp for approval. There was a brief introduction of the researcher along with the goals to undertake the study. Preceding the main research, a pilot study was carried out on approval from the office of the Director of Naval Training. Informed consent was sought from personnel from various naval establishments before participating in the research. Data was collected from the Naval Headquarters, the Western Naval Command (WNC), the Eastern Naval Command (ENC), the fleet and the Naval Training Command (NAVTRAC). Personnel/ratings were asked to complete the questionnaires in their spare time and not during working hours in order not to interrupt their busy schedules at the workplace and departments. Participants received verbal assurances of confidentiality and anonymity of response although it was stated on the questionnaires. It took participants an average of fifteen to twenty minutes to complete the questionnaire and due to this, some questionnaires were collected the same day it was distributed because personnel filled it on the spot although the majority were retrieved later. Quartermasters lobby (desk) at some units and commands were the popular drop-off point for completed questionnaires for personnel to drop their questionnaires after completion. The data collection process took four weeks, after which data was scored and coded for statistical analysis.

### 3.9.3 Ethical Considerations

The American Psychological Association provides guidelines that assist researchers to protect participants' interests when conducting psychological researches. In consonance with these outlines, care was taken to follow ethical considerations relevant to the current study as defined by the American Psychological Association (APA, 2002). It was necessary to seek institutional

approval from the Departmental Research and Ethics Committee (DREC), University of Ghana for ethical clearance. When clearance was approved, a letter of introduction with attached required enclosures including a copy of the questionnaire was dispatched to the target organization (Ghana Navy Headquarters) to seek approval for the study. Informed consent of participants was obtained before the beginning of the data collection. Furthermore, the questionnaires explicitly stated the study's goal and the participants' willingness to take part in the study. Confidentiality and anonymity for the information provided by participants were guaranteed. It was also recommended that participants do not write their names on the surveys or make any markings that would expose their identities on the questionnaire. Thorough information about the research was provided to the participants to help them decide if they want to partake or withdraw from participating at any point in time. Participants were also informed that participating or declining to participate in the study would have no risk or unfavourable consequence. Finally, the contact details (phone numbers and email address) of the researcher were made available in case participants wanted any assistance or clarification(s) about the research.



## CHAPTER FOUR

### RESULTS

#### 4.1 Introduction

Results of the data statistical analysis acquired in the study are reported in this chapter. To establish accurate and valid empirical results that explain the relationship between occupational stress, job embeddedness, and job attitudes (job satisfaction and organizational commitment), data analysis in this chapter was conducted. Each of the results is presented as a table, with a brief explanation supporting the table. Two phases of analysis were carried out with all of the gathered data using SPSS (Statistical Package for the Social Sciences) version 23. The first phase consisted of a series of preliminary tests such as descriptive statistics and reliability analysis as well as normality checks for data and testing for correlations. The second phase of the study involved testing the hypotheses that had been established during the research process.

#### 4.2 Preliminary Analysis

As part of the preliminary analysis, means and standard deviations of the research variables were generated. After, the instruments used were subjected to reliability and normality tests. A correlation analysis was performed among the variables of interest in the study utilizing the Pearson's Product Moment Correlation Coefficient.

##### 4.2.1 Normal Distribution Analysis

The preliminary analysis included a test for the normality of the data. This is because the normal distribution of the variables is a prerequisite for using parametric statistical tests (Tabachnick & Fidell, 2013). The skewness and kurtosis of the scores obtained were assessed to

identify the normal distribution of the data. According to Garson (2012), a variable with its skewness and kurtosis values within 2 and -2 has a normal distribution. Additionally, Verma and Abdel-Salam (2019) indicated that if skewness is more than twice its standard error, the data is considered skewed. The parametric statistical analysis was utilized because the data was normally distributed falling within the skewness and kurtosis range of 2 and -2. (See Table 3).

#### 4.2.2 Reliability Analysis

One of the most widely used indicators of internal consistency according to Pallant (2011) is the Cronbach's alpha coefficient. To establish the reliability of the measures used in the current study, the internal consistency (Cronbach's alpha) was generated. Preferably, the acceptable Cronbach alpha coefficient of a scale should be above 0.7 (DeVellis, 2003). However, Cronbach's alpha coefficients were found to be adequate for all scales utilized in this study (See Table 3).

#### 4.2.3 Descriptive Analysis

Descriptive statistics was performed which included the computation of the mean and standard deviations of the data. Table 3 summarizes the results of this analysis.

**Table 3. Descriptive Statistics and Reliability Indices of the Study Variables.**

Variable	Mean	SD	Min.	Max.	Skewness	Kurtosis	Alpha
Job Embeddedness	20.46	4.60	9	32	-.167	-.234	.732
Occupational Stress	39.21	11.17	17	68	.136	-.503	.883
Job Satisfaction	78.44	11.31	50	107	.046	-.136	.783
Organizational Commitment	58.92	9.86	33	85	-.205	-.406	.822

From Table 3, Job Embeddedness recorded an average value of 20.46 and standard deviation of 4.60, a minimum and maximum values of 9 and 32 respectively. The minimum, maximum, mean and standard deviation values for Occupational Stress were, 17, 68, 39.21 and 11.17 respectively. Furthermore, there was a minimum, maximum and standard deviation score of 50, 70, and 11.31 respectively for Job Satisfaction as well as an average score of 78.44. Additionally, Organizational Commitment had a mean score of 58.92 and a standard deviation of 9.86 with minimum and maximum scores of 33 and 85 respectively. Normality test also yielded Skewness and Kurtosis between the required range (-2 and 2), proving that the variables were normally distributed.

#### 4.2.4 Pearson Correlations among Variables

Using the Pearson Correlation Analysis, the analysis was completed by conducting a correlation matrix to identify the link between the independent variable and the dependent variable, as well as the moderating variables in this study. The correlation analysis also served as a requirement for performing regression analysis in the present study. Table 4 is a presentation of the results obtained in the analysis

**Table 4. Summary of Pearson Correlation Matrix of the Relationship between Study Variables**

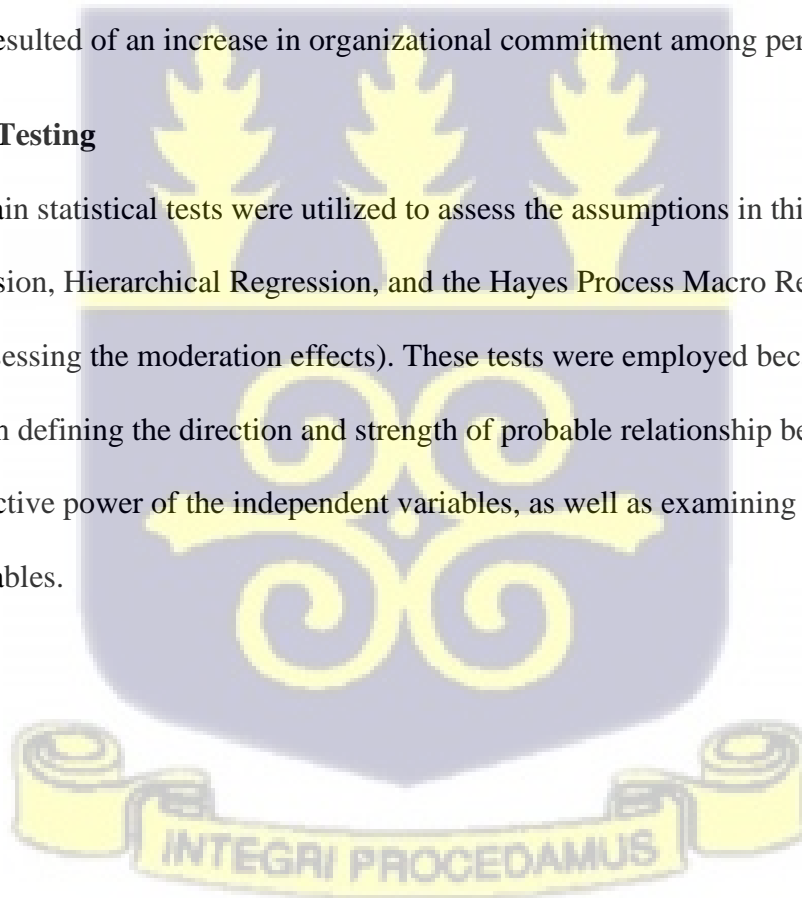
Variables	1	2	3	4
1. Job Embeddedness	-			
2. Occupational Stress	-.121**	-		
3. Job Satisfaction	.370***	-.514***	-	
4. Organizational Commitment	.581***	-.261***	.491***	-

\*\*p < .01, \*\*\*p < .001

From Table 4 above, results indicated that occupational stress had a significant inverse relationship with job embeddedness ( $r = -.121, p < .01$ ). This means that job embeddedness reduces with an increase in occupational stress and therefore personnel/ratings who were faced with an increase in occupational stress experienced low job embeddedness. Also, the result indicated a significant positive relationship between job satisfaction and job embeddedness ( $r = .370, p < 0.001$ ), meaning the higher the job satisfaction, the higher the job embeddedness of personnel. In other words, as personnel experience high job satisfaction, they experience the need to stay in the organization. The result further established that organizational commitment had a significant positive relationship with job embeddedness ( $r = .581, p < .001$ ), meaning an increase in job embeddedness resulted of an increase in organizational commitment among personnel.

#### 4.3 Hypothesis Testing

Three main statistical tests were utilized to assess the assumptions in this study: Standard Multiple Regression, Hierarchical Regression, and the Hayes Process Macro Regression Analysis (for assessing the moderation effects). These tests were employed because of the study's interest in defining the direction and strength of probable relationship between factors, testing the predictive power of the independent variables, as well as examining the roles of the moderating variables.



**Table 5. Outcomes of Standard Multiple Regression Analysis for Occupational Stress, Job Satisfaction, and Organizational Commitment as Predictors of Job Embeddedness.**

	B	SE	$\beta$	t	p
Constant	-.814	1.953			
Occupational Stress	.041	.018	.099	2.256	.025
Job Satisfaction	.066	.020	.162	3.313	.001
Organizational Commitment	.246	.020	.528	12.157	.000

$R^2 = .354, p < .001$

A strong significant model ( $R^2 = .354, F_{(3, 432)} = 82.694, p < .001$ ) was recorded using the Standard Multiple Regression analysis. On the whole, the predictor variables accounted for 35% ( $R^2 = .354$ ) of variance in the dependent variable (job embeddedness) indicating that occupational stress, job satisfaction and organizational commitment were strong predictors of job embeddedness in the study. Further, occupational stress ( $\beta = .099, p < .05$ ), job satisfaction ( $\beta = .162, p = .001$ ) and organizational commitment ( $\beta = .528, p < .001$ ) uniquely contributed significantly towards predicting job embeddedness. The Standard Multiple Regression analysis was therefore used to test for hypothesis 1, 2a and 2b. The analysis was used to allow the control of confounding variables in the model and to avoid omitted variable bias that may affect the results of the relationships between the study variables (Frost, 2019).

#### 4.3.1 Test of Hypothesis 1

The first hypothesis indicated that occupational stress will have a significant negative relationship with job embeddedness. Thus, it was anticipated that the extent to which personnel experience occupational stress would negatively correspond to the extent to which they feel

embedded in the organization. The strength and direction of this relationship were examined using the Standard Multiple Regression analysis.

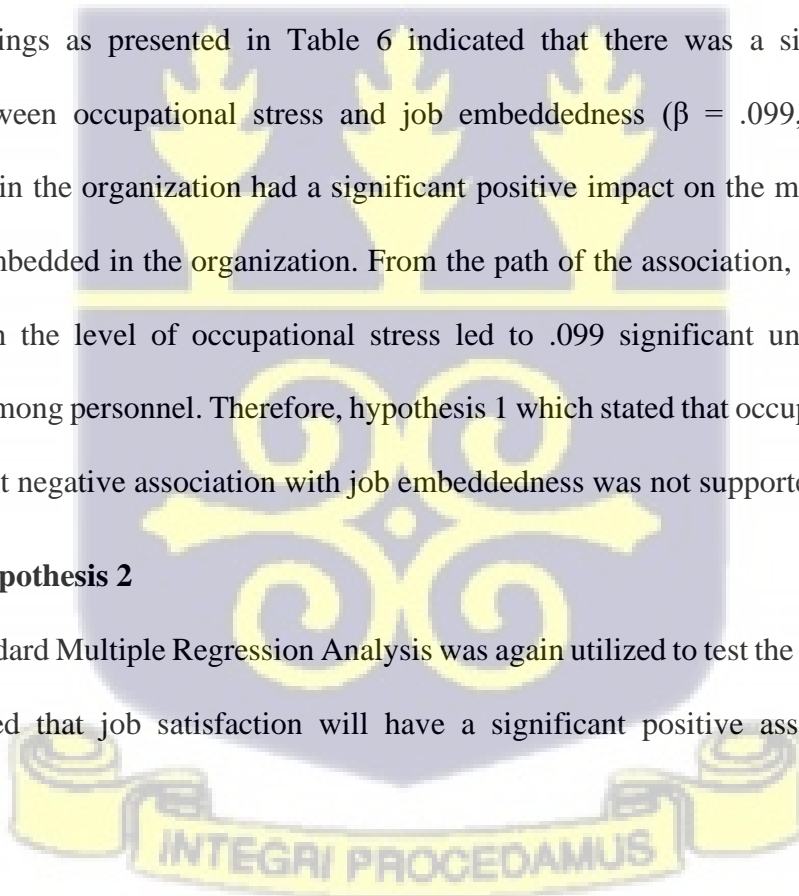
**Table 6. Standard Multiple Regression Analysis for Occupational Stress and Job Embeddedness**

	B	SE	$\beta$	t	p
Constant	-.814	1.953			
Occupational Stress	.041	.018	.099	2.256	.025

The findings as presented in Table 6 indicated that there was a significant positive relationship between occupational stress and job embeddedness ( $\beta = .099, p < .05$ ). Thus, personnel stress in the organization had a significant positive impact on the magnitude to which personnel felt embedded in the organization. From the path of the association, it is indicated that a unit change in the level of occupational stress led to .099 significant unit increase in job embeddedness among personnel. Therefore, hypothesis 1 which stated that occupational stress will have a significant negative association with job embeddedness was not supported.

#### 4.3.2 Test of Hypothesis 2

The Standard Multiple Regression Analysis was again utilized to test the second hypothesis (2a) which stated that job satisfaction will have a significant positive association with job embeddedness.



**Table 7. Standard Multiple Regression Analysis for Job Satisfaction and Job Embeddedness**

	B	SE	$\beta$	t	p
Constant	-.814	1.953			
Job Satisfaction	.066	.020	.162	3.313	.001

From Table 7, hypothesis 2a was tested and the result indicated that there was a significant positive relationship between job satisfaction and job embeddedness ( $\beta = .162, p = .001$ ). The path of this relationship also showed that a unit change in the level of job satisfaction personnel experienced led to .162 unit increase of personnel feeling of staying in the organization. Given this, hypothesis 2a which stated that job satisfaction will have a significant positive connection with job embeddedness was supported.

Using the same Standard Multiple Regression test, hypothesis 2b which stated that organizational commitment will have a significant positive association with job embeddedness was tested.

**Table 8. Standard Multiple Regression Analysis for Organizational Commitment and Job Embeddedness**

	B	SE	$\beta$	t	p
Constant	-.814	1.953			
Organizational Commitment	.246	.020	.528	12.157	.000

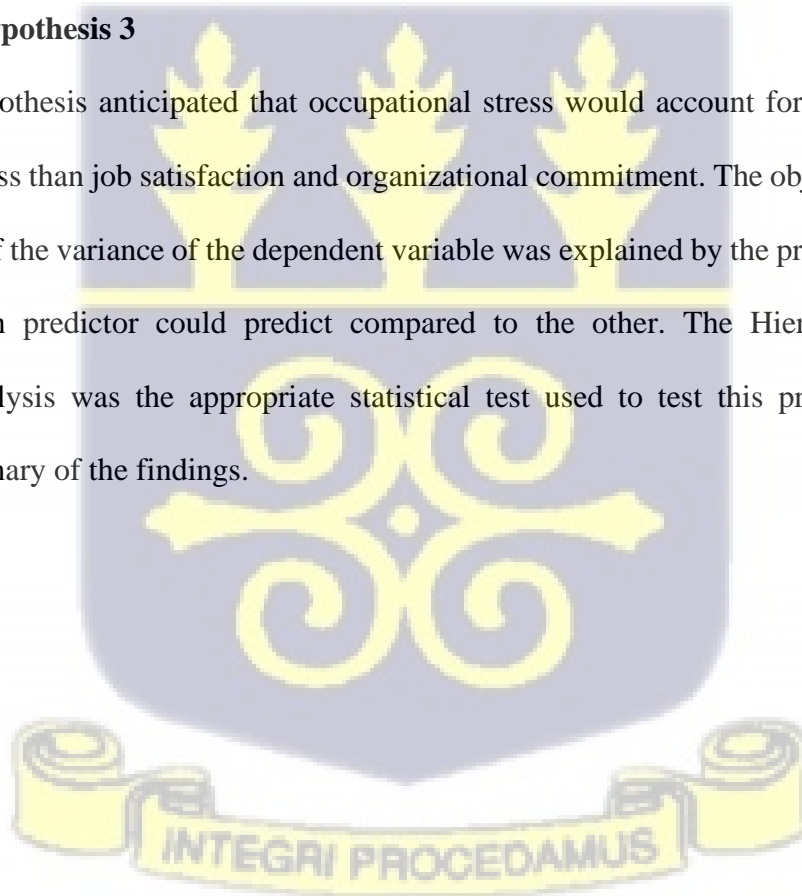
From Table 8, organizational commitment recorded a significant positive relationship with job embeddedness ( $\beta = .528, p < .001$ ). This means that organizational commitment as a job attitude had a significant positive effect on job embeddedness among personnel of the Ghana Navy.

Additionally, the path of this association indicated that a unit change in the commitment level of personnel corresponds to .528 unit increase in the level of job embeddedness among personnel.

Additionally, hypothesis 2b which predicted that organizational commitment will have a positive link with job embeddedness was supported.

### 4.3.3 Test of Hypothesis 3

This hypothesis anticipated that occupational stress would account for more variance in job embeddedness than job satisfaction and organizational commitment. The objective was to find out how much of the variance of the dependent variable was explained by the predictors as well as how much each predictor could predict compared to the other. The Hierarchical Multiple Regression Analysis was the appropriate statistical test used to test this prediction. Table 9 provides a summary of the findings.



**Table 9. Outcomes of Hierarchical Multiple Regression Analysis for Occupational Stress, Job Satisfaction, and Organizational Commitment as Predictors of Job Embeddedness.**

	B	SE	$\beta$	t	R <sup>2</sup>	$\Delta R^2$
Model 1					.015	.015**
Constant	22.41	.782				
Occupational Stress	-.050	.019	-.121**	-2.60		
Model 2					.143	.129***
Constant	5.63	2.16				
Occupational Stress	.038	.021	.093	1.83		
Job Satisfaction	.170	.021	.418***	8.24		
Model 3					.354	.211***
Constant	-.814	1.95				
Occupational Stress	.041	.018	.099*	2.25		
Job Satisfaction	.066	.020	.162***	3.31		
Organizational Commitment	.246	.020	.528***	12.16		

\*p < .05, \*\*p < .01, \*\*\*p < .001

The hierarchical multiple regression in step 1 revealed that, a significant model emerged from the analyses ( $R^2 = .015$ ,  $F_{(1, 454)} = 6.787$ ,  $p < 0.01$ ). Occupational stress significantly predicted job embeddedness, accounting for 1.5% variance in the outcome variable (job embeddedness). When job satisfaction was introduced in the second step, the predictive power of the regression model increased ( $R^2 = .143$ ,  $F_{(2, 453)} = 37.87$ ,  $p < .001$ ). Job satisfaction accounted for a significant

13% upward change ( $\Delta R^2 = .129$ ,  $\Delta F = 67.94$ ,  $p < .001$ ) of the variance in job embeddedness. At step 3, organizational commitment was added to the model and the predictive power of the model again significantly increased ( $R^2 = .354 = F_{(3, 452)} = 82.69$ ,  $p < .001$ ). Organizational commitment accounted for 21% upward change ( $\Delta R^2 = .211$ ,  $\Delta F = 147.81$ ,  $p < .001$ ) of the variance in job embeddedness.

Comparatively, organizational commitment ( $\beta = .528$ ,  $p < .001$ ) recorded the strongest predictive ability of job embeddedness accounting for 21 % of variance, followed by job satisfaction ( $\beta = .418$ ,  $p < .001$ ) which accounted for 13 % of the variance in job embeddedness while occupational stress ( $\beta = -.121$ ,  $p < .01$ ) emerged the least powerful predictor, accounting for 1.5% of the variance in job embeddedness. Therefore, hypothesis three which anticipated that occupational stress would account for more variance in job embeddedness than job satisfaction and organizational commitment was not supported.

Additionally, the dimensions of the predictors were examined to investigate their unique predictive ability towards job embeddedness. Realizing that testing the composite measures of the predictor variables and associating them with personnel outcomes had become a common practice, the present study therefore went further into measuring the specific facets of the predictor variables and finding their relationship with constructs like job embeddedness. In this case, facets of occupational stress (workload demands, limited growth opportunities, personal issues, working conditions), job satisfaction (pay, promotion, supervision, rewards, co-worker, work itself), and organizational commitment (affective, normative, continuance) were examined to identify their unique predictive power on job embeddedness. In other words, the investigation was intended to determine the unique contributions of each of the facets of the predictors (occupational stress, job

satisfaction, and organizational commitment) in predicting job embeddedness. Table 10 depicts the results of this analysis.

**Table 10. Findings of Hierarchical Multiple Regression Analysis for the dimensions of Occupational Stress, Job Satisfaction and Organizational Commitment as predictors of Job Embeddedness.**

	B	SE	$\beta$	t	R <sup>2</sup>	$\Delta R^2$
Model 1					.017	.017
Constant	22.344	.799				
Workload demands	-.025	.046	-.032	-.547		
Limited growth opportunities	-.090	.076	-.061	-1.18		
Personal/family issues	.010	.096	.005	.101		
Working conditions	-.112	.095	-.073	-1.18		
Model 2					.241	.224***
Constant	6.244	2.145				
Workload demands	-.012	.045	-.015	-.255		
Limited growth opportunities	.033	.071	.023	.471		
Personal/family issues	.102	.086	.057	1.18		
Working conditions	.059	.087	.039	.682		
Pay	.272	.072	.178***	3.78		
Promotion	.220	.068	.149**	3.25		
Supervision	-.027	.082	-.018	-.336		
Rewards	.015	.070	.010	.212		
Co-worker	-.099	.087	-.057	-1.14		
Work itself	.601	.071	.412***	8.43		
Model 3					.408	.167***
Constant	1.679	2.035				
Workload demands	-.005	.041	-.006	-.120		
Limited growth opportunities	.069	.064	.047	1.09		

Personal/family issues	-.012	.077	-.007	-.162
Working conditions	.042	.077	.027	.541
Pay	.128	.065	.084*	1.96
Promotion	.141	.061	.095*	2.30
Supervision	-.126	.073	-.084	-1.71
Rewards	.089	.062	.060	1.42
Co-worker	-.173	.078	-.099*	-2.22
Work itself	.354	.068	.243***	5.21
AC	.164	.061	.132**	2.67
NC	.210	.055	.194***	3.84
CC	.290	.043	.288***	6.69

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

The hierarchical multiple regression in step 1 revealed that, a non-significant model emerged from the analysis ( $R^2 = .017$ ,  $F_{(4, 454)} = 1.968$ ,  $p = .09$ ). The dimensions of occupational stress did not predict job embeddedness, but accounted for 1.7% variance in the outcome variable (job embeddedness). When the dimensions of job satisfaction were introduced in the second step, the predictive power of the regression model increased ( $R^2 = .241$ ,  $F_{(10, 445)} = 14.15$ ,  $p < .001$ ). Job satisfaction dimensions accounted for a significant 22% upward change ( $\Delta R^2 = .224$ ,  $\Delta F = 21.91$ ,  $p < .001$ ) of the variance in job embeddedness. At step 3, organizational commitment dimensions were added to the model and the predictive power of the model again significantly increased ( $R^2 = .408$ ,  $F_{(13, 442)} = 23.46$ ,  $p < .001$ ). The dimensions of organizational commitment accounted for 17% upward change ( $\Delta R^2 = .167$ ,  $\Delta F = 41.58$ ,  $p < .001$ ) of the variance in job embeddedness.

From the findings displayed in Table 10, workload demands ( $\beta = -.032$ ,  $p = .585$ ), limited growth opportunities ( $\beta = -.061$ ,  $p = .238$ ), and working conditions ( $\beta = -.073$ ,  $p = .240$ ) all had negative and non-significant predictive ability in job embeddedness whiles personal/family issues recorded a positive non-significant predictive power in job embeddedness ( $\beta = .005$ ,  $p = .920$ ).

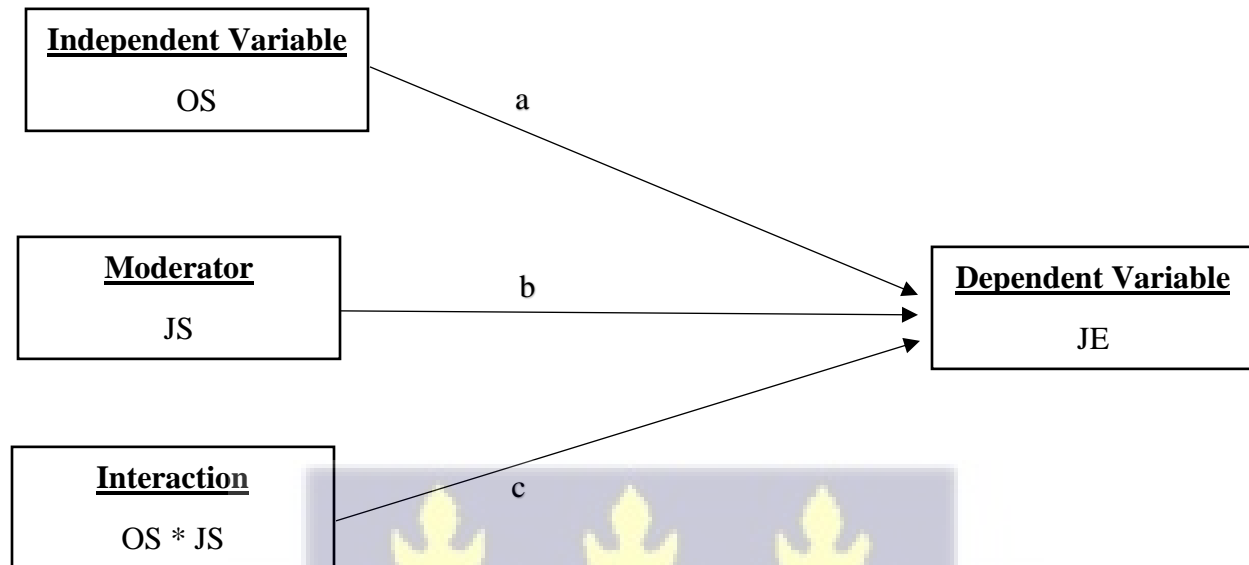
With regards to the dimensions of job satisfaction, work itself ( $\beta = .412, p < .001$ ) had a more significant predictive ability in job embeddedness followed by pay ( $\beta = .178, p < .001$ ), and promotion ( $\beta = .149, p = .001$ ). However, co-worker ( $\beta = -.057, p = .257$ ), supervision ( $\beta = -.018, p = .737$ ) and recognition/rewards ( $\beta = .010, p = .832$ ) recorded a non-significant predictive ability in job embeddedness.

Lastly, continuance commitment ( $\beta = .288, p < .001$ ) recorded a high significant predictive ability, followed by normative commitment ( $\beta = .194, p < .001$ ) with affective commitment ( $\beta = .132, p = .008$ ) recording the least predictive ability in job embeddedness.

#### 4.3.4 Testing of Hypothesis 4

The fourth hypothesis stated that job satisfaction will moderate the relationship between occupational stress and job embeddedness such that job satisfaction will weaken the relationship between occupational stress and job embeddedness. The procedure proposed for moderation analysis according to Aiken and West (1991) specifies that; the independent and moderator variables must be standardized to eliminate issues of multi-collinearity. The interaction term is created by multiplying the standardized independent variable and the moderator. After, hierarchical regression is conducted to check the significance of the interaction term to identify if moderation has occurred or not. Hayes (2013) proposed an algorithm known as “Hayes Process Macro” to explore the moderation effects by applying the aforementioned procedures directly. Thus, the Process Macro (Model 1) was utilized to examine the potential moderating effect as specified in this hypothesis. According to Hayes (2013), moderating effect analysis performed using the bootstrap technique to create confidence intervals for the moderation effect gives a more consistent result compared to the traditional method of Baron and Kenny (1986).

**Figure 4. Path diagram of the moderating model**



In the path diagram in Figure 4, the first path is the influence of occupational stress as a focal predictor (a). The effect of job satisfaction as a moderator is depicted in the second path (b). The interaction between the independent variable (occupational stress) and the moderator (job satisfaction) on the dependent variable (job embeddedness) is reflected in the third part (c). Therefore, hypothesis four would be confirmed if there is a significant interaction (c). To test this hypothesis, regression analysis with the Process Macro was used. Displayed in Table 11 is the findings of the analysis.



**Table 11. Outcomes of the Regression Analysis from Process Macro for Job Satisfaction on the Relationship between Occupational Stress and Job Embeddedness**

Model	$\beta$	SE	t	LLCI	ULCI
Constant	6.089	1.203	5.062	.3725	8.4538
OS	.519*	.203	2.545	.1183	.9198
JS	.779***	.224	3.475	.3387	1.2206
OS * JS	.348*	.161	2.152	.0303	.6661
OC	.246***	.020	12.236	.2072	.2865

$R^2 = .361$ ,  $\Delta R^2 = .0066$ ; \* $p < .05$ , \*\*\* $p < .001$

Moderating effect analysis performed using the bootstrap technique indicated that the values at 95% confidence interval should not include the value of zero (0) as a result of the analysis so the research hypothesis can be supported. Thus, the 5000 bootstraps and 95% bias-corrected confidence interval for estimating respective effects was utilized. For easy interpretation of the coefficient, both the predictor variable and moderator were standardized. After controlling for organizational commitment, the model explained approximately 36% variance in job embeddedness ( $F_{(4,451)} = 63.67$ ,  $p < .001$ ,  $R^2 = .360$ ). Additionally, the interaction between occupational stress and job satisfaction was significant and accounted for 0.6% variance in job embeddedness ( $F_{(1,451)} = 4.633$ ,  $p < .05$ ,  $\Delta R^2 = .006$ ). It was also found that occupational stress ( $\beta = .519$ ,  $p < .05$ ) and job satisfaction ( $\beta = .779$ ,  $p < .001$ ) had significant effects on job embeddedness. However, the interaction effect (moderating effect) of occupational stress and job satisfaction on job embeddedness was found to be significant ( $\beta = .348$ ,  $p < .05$ ).

Furthermore, the regression analysis output reported the specific conditional effects of

occupational stress on job embeddedness at different levels of job satisfaction. Job satisfaction was categorized into low (-1 SD), average, and high (1 SD) based on the number of standard deviations from the mean. Findings demonstrated that the occupational stress job embeddedness relationship was not significant when job satisfaction was low ( $\beta = .170, p = .480$ ). On the other hand, the effects of average ( $\beta = .519, p < .05$ ) and high job satisfaction levels ( $\beta = .867, p < .01$ ) on the relationship were significant. In other words, the positive relationship was stronger for personnel with average and high levels of job satisfaction but not for personnel with lower levels of job satisfaction. To explain further, the analysis also indicated that for those with low levels of job satisfaction (-1 SD), a unit increase in occupational stress was associated with .170 non significant unit increase in job embeddedness. For those with an average level of job satisfaction, a unit increase in stress was associated with .519 significant unit increase in job embeddedness. For those with high levels of job satisfaction (1 SD), a unit increase in stress was linked with .869 significant unit increase in job embeddedness. Table 12 shows the outcome of the analysis.

**Table 12. Summary of conditional effects of the predictor at values of the moderator**

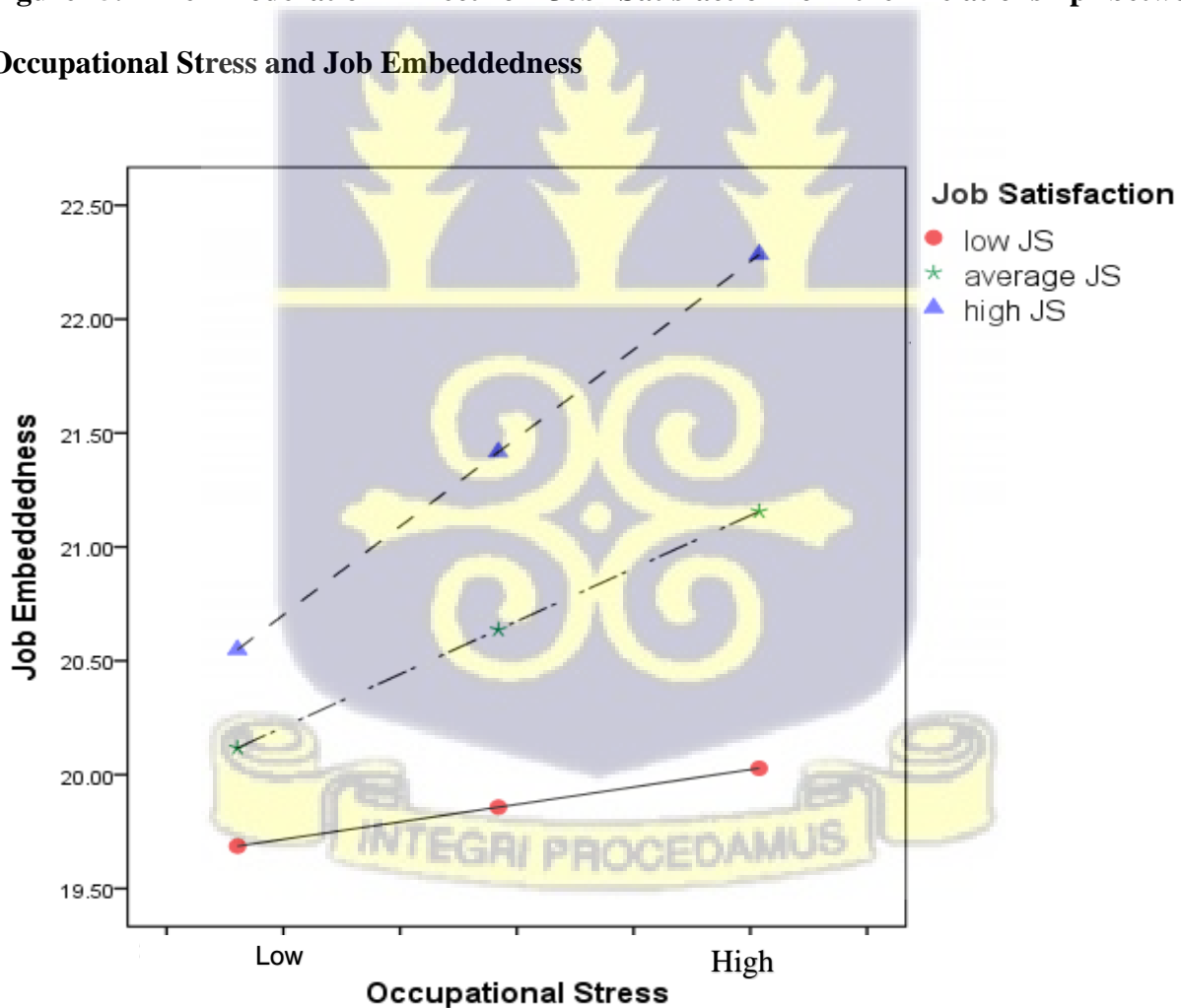
JS	$\beta$	SE	t
-1 SD	.170	.2481	.706
M	.519*	.2039	2.545
+1 SD	.867**	.2775	3.124

\*\*p < .01, \*p < .05

A simple slope analysis is required to properly assess an interaction effect according to Aiken and West (1991), and this was carried out since an interaction effect was established for the link between occupational stress and job embeddedness at different levels of job satisfaction. From the graph (Figure 5), personnel with high levels of job satisfaction irrespective of the level of

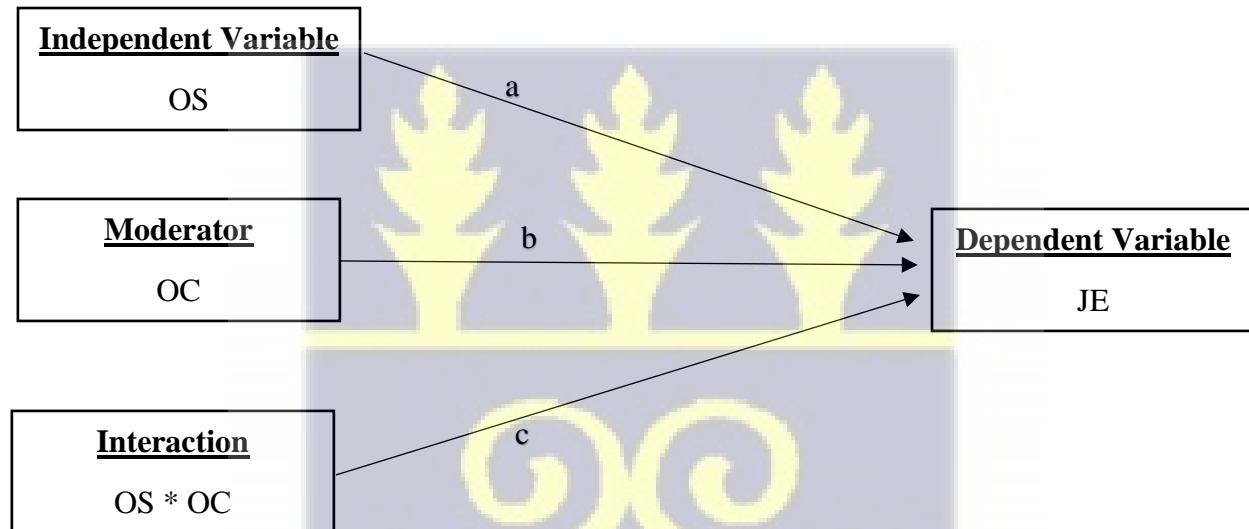
organizational stress experienced high levels of job embeddedness than those having low levels of job satisfaction. It is indicated that, the relationship between occupational stress and job embeddedness was stronger and significant when job satisfaction was high. On the contrary, the link between occupational stress and job embeddedness was low and not significant when job satisfaction was low. Therefore, high job satisfaction enhanced/amplified the effect of occupational stress on job embeddedness. In view of this, hypothesis four which stated that job satisfaction will moderate the relationship between occupational stress and job embeddedness such that the relationship is weakened/buffered when job satisfaction level is high was not supported.

**Figure 5. The Moderation Effect of Job Satisfaction on the Relationship between Occupational Stress and Job Embeddedness**



#### 4.3.5 Testing of Hypothesis 5

The regression analysis with Process Macro (Model 1) was again used to examine the fifth hypothesis which proposed that organizational commitment will play a moderating role in the relationship between occupational stress and job embeddedness such that higher organizational commitment will weaken/buffer the relationship between occupational stress and job embeddedness.



**Figure 6. Path diagram of the moderating model**

As shown in Figure 6, each of the three paths is related to the outcome variable (job embeddedness). The first path is the influence of occupational stress as an independent variable (a). The second path is the effect of the organizational commitment as a moderator (b). The third path (c) is the interaction between the independent variable (occupational stress) and the moderator (organizational commitment) on the dependent variable (job embeddedness). To confirm

hypothesis four, a significant interaction (c) effect should be obtained.

The result of the analysis using the Process Macro is displayed in Table 13.

**Table 13. Summary of the Regression Analysis from Process Macro for Organizational Commitment on the Relationship between Occupational Stress and Job Embeddedness**

Model	$\beta$	SE	t	LLCI	ULCI
Constant	15.342	1.560	9.832	12.276	18.409
OS	.487*	.202	2.409	.0898	.8852
OC	2.460***	.199	12.334	2.068	2.852
OS * OC	.353*	.163	2.155	.0312	.6747
JS	.066***	.019	3.357	.0275	.1052

$R^2 = .360$ ,  $\Delta R^2 = .0066$ ; \* $p < .05$ , \*\*\* $p < .001$

After controlling for job satisfaction, the model explained approximately 36% variance in job embeddedness ( $F_{(4,451)} = 63.68$ ,  $p < .001$ ,  $R^2 = .360$ ). Additionally, the interaction between occupational stress and organizational commitment was significant and accounted for 0.6% variance in job embeddedness ( $F_{(1,451)} = 4.646$ ,  $p < .05$ ,  $\Delta R^2 = .006$ ). It was found that occupational stress was significant and had a positive effect on job embeddedness ( $\beta = .487$ ,  $p < .05$ ), while organizational commitment recorded a significant positive effect on job embeddedness ( $\beta = 2.460$ ,  $p < .001$ ). However, the interaction effect (moderating effect) of occupational stress and organizational commitment on job embeddedness was found to be significant ( $\beta = .353$ ,  $p < .05$ ).

Furthermore, the regression analysis output reported the specific conditional effects of occupational stress on job embeddedness at different levels of organizational commitment. Findings showed that the occupational stress job embeddedness relationship was not significant

when the organizational commitment was low ( $\beta = .134, p = .592$ ). On the other hand, the effects of average ( $\beta = .487, p < .05$ ) and high organizational commitment levels ( $\beta = .840, p < .01$ ) on the relationship were significant. Thus, the moderation effect was significant at high levels of organizational commitment but not at lower levels of organizational commitment. The result also indicated that for those with low levels of organizational commitment (-1 SD), a unit increase in occupational stress was associated with .134 non significant unit increase in job embeddedness. For those with an average level of organizational commitment, a unit increase in stress was associated with .487 significant increase in job embeddedness. For those with high levels of organizational commitment (1 SD), a unit increase in stress was linked with .840 significant unit increase in job embeddedness. The outcome of this analysis is presented in table 14.

**Table 14. Summary of conditional effects of the predictor at values of the moderator**

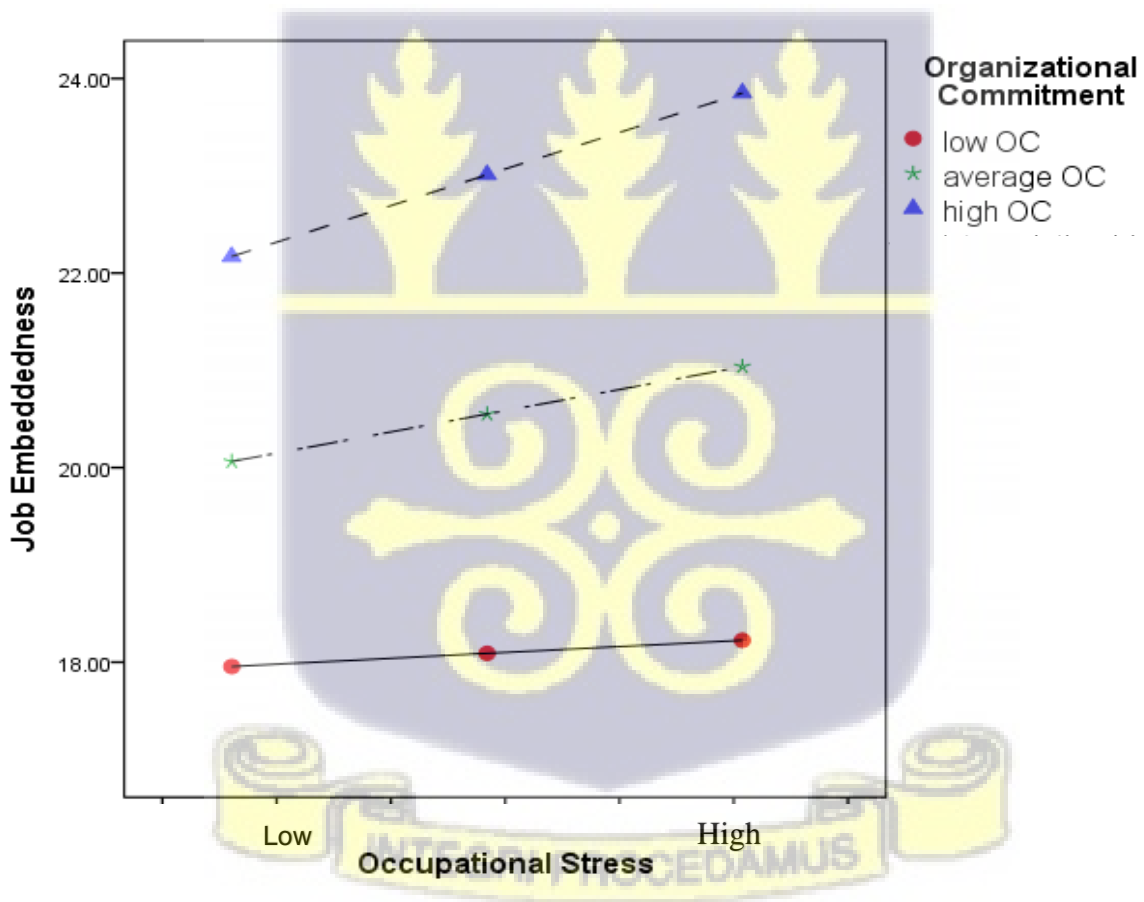
OC	$\beta$	SE	t
-1 SD	.134	.251	.535
M	.487*	.202	2.409
+1 SD	.840**	.269	3.124

\*\*P < .01, \*P < .05

A simple analysis was carried out since an interaction effect was explored for the relationship between occupational stress and job embeddedness at different levels of organizational commitment. It can be observed from the graph (Figure 7) that personnel having high levels of organizational commitment irrespective of the level of organizational stress experienced high levels of job embeddedness than those with low levels of organizational commitment. It is indicated that, the relationship between occupational stress and job embeddedness was stronger and significant when organizational commitment level was high. On the contrary, the link between

occupational stress and job embeddedness was low and not significant when organizational commitment level was low. Therefore, the connection between occupational stress and job embeddedness was enhanced/amplified due to the impact of high organizational commitment. In view of this, the fifth hypothesis which stated that organizational commitment will moderate the relationship between occupational stress and job embeddedness such that the relationship is weakened when organizational commitment level is high was not supported.

**Figure 7. The Moderation Effect of Organizational Commitment on the Relationship between Occupational Stress and Job Embeddedness**



#### 4.3.6 Summary of Findings

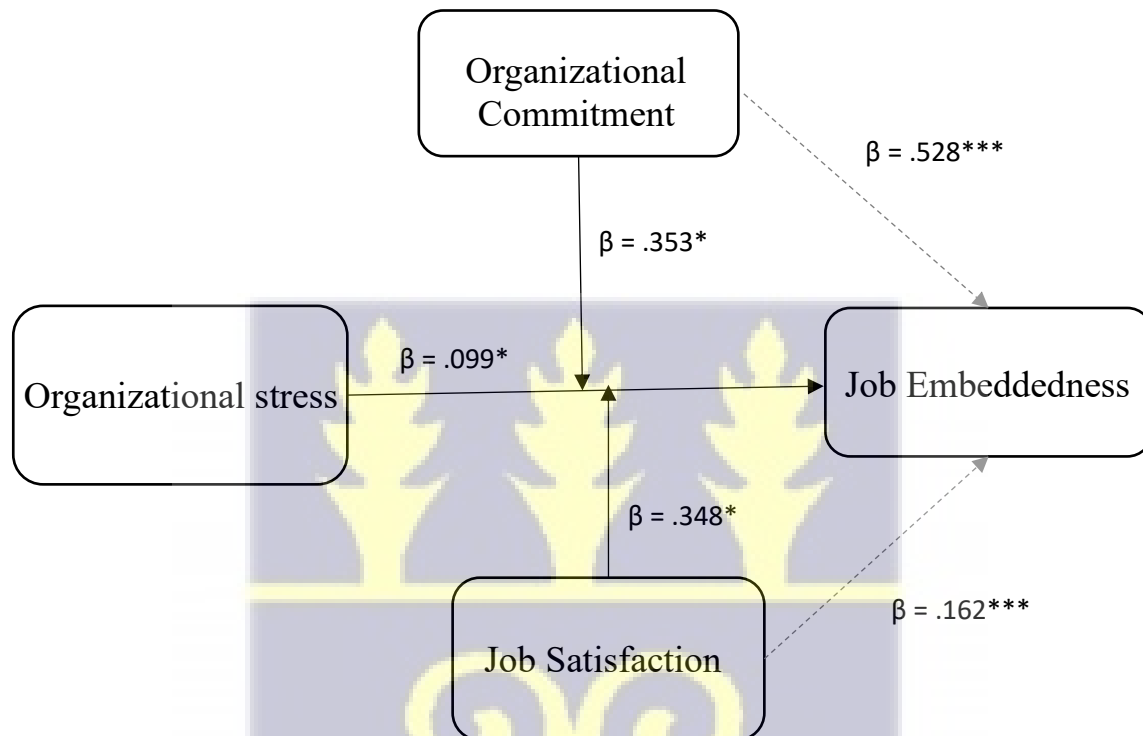
Results of appropriate statistical analyses of the data gathered are as follows:

1. An increase in occupational stress among personnel resulted in an increase in the level of job embeddedness.
2. Job satisfaction and organizational commitment had a significant positive influence on job embeddedness in that personnel who were satisfied and committed to the organization felt more embedded.
3. Organizational commitment had a more predictive ability on job embeddedness than job satisfaction and occupational stress. Additionally, job satisfaction also predicted job embeddedness better than occupational stress.
4. Job satisfaction moderated and had an enhancing effect on the relationship between occupational stress and job embeddedness such that high level of job satisfaction increased the effect between occupational stress and job embeddedness.
5. Organizational commitment on the other hand moderated and had an enhancing effect on the relationship between occupational stress and job embeddedness such that high level of organizational commitment enhanced the effect between occupational stress and job embeddedness.



### Observed Model

The observed model is presented in Figure 8, detailing the relationship among the key variables of interest in this study.



**Figure 8. Summary of observed relationship among study variables**

The proposed model predicted that occupational stress, as well as job attitudes, would significantly relate and predict job embeddedness with job attitudes additionally playing moderating roles (See Figure 1). However, the data analysis indicated a significant positive association between occupational stress and job embeddedness as well as a significant positive relationship between job attitudes and job embeddedness. All the predictors significantly predicted job embeddedness with organizational commitment recording a more predictive ability.

Additionally, job satisfaction ( $\beta = .34$ ) and organizational commitment ( $\beta = .35$ ) uniquely moderated the relationship between occupational stress and job embeddedness such that the moderators at high level enhanced the relationship between occupational stress and job embeddedness.



## CHAPTER FIVE

### DISCUSSION

#### 5.1 Introduction

The modern approach to security issues boils down to the increase in effectiveness and efficiency of security systems including the human resource towards the implementation of the mandate of their institution. In carrying out these mandates, both physical and psychological factors including stress become ubiquitous which needs timely intervention to be integrated to optimize effective performance while balancing risk. Personnel who feel overwhelmed despite their physical and mental toughness embark on leaving the job at an early stage which goes a long way in compromising the reputation of the Ghana Navy, Ghana Armed Forces as well as posing danger to the country at large. Given this, the present study aimed at exploring the relationship between occupational stress and job embeddedness among ratings in the Ghana Navy.

The study also investigated the moderating effects of job satisfaction and organizational commitment on the relationship between occupational stress and job embeddedness. The objective of examining the moderating effect was to enhance the understanding of the conditions under which job satisfaction and organizational commitment would operate to prove as a factor to consider in moderating the link between occupational stress and job embeddedness of personnel.

Based on applicable theories and previous research on the study variables, the findings of the research are discussed in this chapter. Additionally, implications of theoretical and practical significance, as well as limitations and suggestions for further research are also indicated.

## **5.2 Discussion of findings**

The study was based on the realization of inadequate measures that influence stress and job attitudes at the workplace which incite personnel to feel less embedded. With evidence from literature in occupational stress and job attitudes (job satisfaction and organizational commitment) suggesting that the value attached to these predictors gave the conviction that the consequences of these predictors would differ differently in influencing job embeddedness. In-depth evidence was anticipated to make research-based organizational interventions sufficient enough to mitigate problems associated with job embeddedness. Drawing on the literature including job embeddedness, occupational stress, job satisfaction and organizational commitment, five main hypotheses that sought to examine the relationships between the study variables were predicted and examined in the current study.

### **5.2.1 The relationship between Occupational Stress, Job Attitudes (Job Satisfaction and Organizational Commitment), and Job Embeddedness**

The first hypothesis tested in this study predicted a negative association between occupational stress and job embeddedness. Using the Standard Multiple Regression analysis test to test the hypothesis, it was reported that the two variables were significant and positively connected. The inference is that, an increase in the level of stress results in personnel experiencing an increase in embeddedness in the organization. This finding was further confirmed by evidence from a study by LePine et al. (2004) who explored challenge and hindrance stress and its relationships with exhaustion, motivation to learn and learning performance. They found out that stress associated with challenges in the learning environment had a positive relationship with learning performance and that stress associated with hindrances in the learning environment had a negative relationship with learning performance. Similarly, the positive connection between

occupational stress and job embeddedness was consistent with a study by Rosen et al. (2020) who found out that when employees experience a stable pattern of stressors across time periods, they have positive effects on employee performance and well-being outcomes.

However, the result of this study was contradictory to research proof in the existing literature that suggests that workplace stressors are negatively related to intentions to stay (Abdul & Al-Zaru, 2008; Sharif et al., 2016; Vong et al., 2018). The outcome of this study was also inconsistent with evidence from a study by Karatepe (2013) who evaluated the relationships between emotional exhaustion and embeddedness and concluded that emotional exhaustion had a significant negative influence on job embeddedness and job performance. Thus, low levels of job embeddedness and poor performance was a result of emotional exhaustion. Similarly, the negative association between job stress and intent to stay implied in studies by Sharif et al. (2016) and Vong et al. (2018) contradicts the outcome that tested the first hypothesis of this study.

The finding of the study further contradicts the clarifications offered by the Job Demand Resource model (Bakker & Demerouti, 2007) which indicates that the availability of job demands including work overload, limited growth opportunities, family issues, and unfavourable working conditions as well as other stress-related factors leads to negative outcomes such as sickness, absenteeism, poor performance, financial costs to mention a few. Rather, the presence of stress in the study played a key role in establishing positive consequences like increased job embeddedness among personnel. This indicates that if personnel experience job demands leading to stress (stress process), they will feel more embedded in the organization. The definition of occupational stress as proposed by researchers indicates that the concept comprises the characteristics of the job environment which poses threat to workers in excessive demands with fewer resources to meet their needs which results in negative outcomes like early voluntary release and AWOL incidences

in the military context. As a result, observation in the current research that personnel who experience stress in the Ghana Navy also confirm increase levels of job embeddedness proves inconsistent with the theory. Given this, stress in the current study proved to be a challenge stress since it recorded a positive outcome and there was reason to expect that increase in stress will precipitate a significant increase in positive outcomes like embeddedness in the organization.

Observing from the literature that both job satisfaction and organizational commitment have relationships with positive outcomes, it was predicted in this study that these job attitudes would have a significant positive link with job embeddedness. Standard Multiple Regression analysis used at this phase confirmed the second hypothesis (2a & 2b). The finding, therefore, supports the suggestion made by Chiang et al. (2005) who investigated the influence of job satisfaction on intent to stay and found a significant positive association between these variables. Similar findings were also obtained by Lee and Lee (2008) who found out that job satisfaction was positively related to the organizational immersion of employees in a Contract Foodservice Management Company. The results of the present study also confirm that of Mrayyan (2005) which suggested that the higher the job satisfaction the higher the retention among nurses. The outcome of this study was consistent with the study by Enu-Kwesi et al. (2014) who apart from identifying policies as a determinant of employee retention, also found job satisfaction having a statistically significant predictive ability in employee retention. Similar studies by Kwenin et al. (2013) identified that job satisfaction recorded a positive and statistically significant link with retention of personnel of Vodafone Ghana Limited and this was consistent with the results of the present study.

Organizational commitment on the other hand was found in this study to be significant and positively related to job embeddedness among personnel and this corroborates with finding by

Anis et al. (2011) who recorded a significant positive association between organizational commitment and employee retention with organizational commitment accounting for a variance of 39% in employee retention. Mahal (2012) also found a similar result as organizational commitment had a negative relation with employee turnover and as hypothesized by the researcher, commitment influenced employee retention. Findings of this study is also consistent with the study by Gyamfi (2019) who investigated the relationship between retention and organizational commitment of faculty members from public universities in Ghana and discovered a significant and positive link between the study variables (commitment and retention).

In the current study, feelings of job satisfaction and commitment by personnel in the Ghana Navy are associated with higher levels of job embeddedness therefore organizational interventions that target ameliorating early voluntary release and AWOL incidences, as well as other negative outcomes, would do better if they are not only focused on combating and managing stress in the organization but also on enhancing and conserving the job satisfaction and commitment levels of personnel.

This outcome can further be explained by the fact that, according to the Conservative of Resource theory, understanding the impact of performance and positive outcome including job embeddedness boils down to focusing on the resources of workers in the organization. Thus, the theory explains why personnel attempt to acquire, retain, protect and develop what they perceive to be valuable resources. The COR theory provides a model for maintaining existing resources and gaining resources necessary for engaging in appropriate behaviours including job embeddedness.

According to Dechawatanapaisal (2018), resources that are valued characteristics and conditions can be tangible and intangible and can reside within an individual e.g., satisfaction, organizational support, and HR practices. Job satisfaction and organizational commitment used in

the literature are resources that corroborate with the COR theory and purports that a positive association exists between the degree to which personnel are embedded in their organization and the availability of resources for their use. Because an increase in resource availability makes it easier for personnel to replace or substitute resources (job satisfaction and organizational commitment) in the workplace, it improves their ability to coordinate their job demands (occupational stress). The observation in the study that personnel who experience high job satisfaction and organizational commitment levels recorded high levels of embeddedness in the organization confirmed the authenticity of the COR theory.

Job resources as found in the JD-R model indicates those aspects of the job that are functional in achieving work goals, reducing job demands and personal growth and development. In the current study, stress, job satisfaction and organizational commitment influenced personnel positive outcomes like job embeddedness and therefore cushioned the burden already placed on personnel in the organization. Thus, organizational interventions that target improving job satisfaction and organizational commitment, and other resources to cover up ubiquitous factors like stress in the organization need to be implemented.

### **5.2.2 Comparison among the predictor variables (Occupational Stress, Job Satisfaction, and Organizational Commitment) on their relationship with Job Embeddedness**

Having observed from the literature that occupational stress and job attitudes have relationships with job embeddedness, it was anticipated that some proof would exist to give a view about how occupational stress, job satisfaction, and organizational commitment compare in predicting job embeddedness. Not much evidence was found in previous literature but the little evidence found proved the predictors compared to predict other criterions. From the theoretical standpoints, occupational stress supported the predictive ability of job embeddedness as predicted

in the current study but organizational commitment accounted for more variance in job embeddedness than job satisfaction and occupational stress. The Hierarchical Multiple Regression analysis supported this as occupational stress played a less dominant role in explaining the variance in job embeddedness than job attitudes. The finding, therefore, supports the suggestions by Griffeth et al. (2000) who found that turnover intention was better predicted by organizational commitment than job satisfaction. The result of the study is also consistent with research by Anis et al. (2011) who examined the relationship between job satisfaction, organizational commitment and employee retention and found out that organizational commitment explained more variance in retention than job satisfaction. Although the findings proved to be contradictory to the stated hypothesis in this study and other literature, it may be pointed to the various reasons including contextual differences in the study locations. According to Martin et al. (2006), army recruits entering basic training are exposed to stress in the form of rigorous mental and physical training. The exposure of recruits to these stressful training conditions is believed to toughen them both physically and mentally to deal with issues throughout their tenure in the military hence the less predictive ability of occupational stress in this study. Additionally, “most studies have found a reduction in the amount of stress experienced at the end of basic training which is reflected in lower levels of self-reported psychological distress” (Martin et al., 2006). It is noted by Matthewman et al. (2009) and Legg (2018) that stress is not always bad since lower levels help one achieve their goal. Furthermore, the stress recorded in the study yielded positive outcome making it a challenge stress and not a hindrance stress.

As has been presented in this study, personnel experiencing more levels of commitment in the organization which is a dominant factor among the predictors exhibit high job embeddedness, and therefore interventions to enhance commitment level in the Ghana Navy should be prioritized

followed by improving job satisfaction and then putting measures in place to manage job stress in that order. Having highly committed personnel in the Ghana Navy proves to be of benefit to the growth of the organization as the military duty according to (Lytell & Drasgow, 2009) is very difficult and requires dedicated and committed soldiers coupled with pride in service and ethical behaviour.

Additionally, an observation in other literature on job embeddedness and its relations with factors like occupational stress, job satisfaction, and organizational commitment tended to focus on measuring these concepts without assessing the unique facets and how these compare to others in predicting job embeddedness. The absence of these details was seen to be unfavourable to organizational intervention design as organizations only focus on general concepts of occupational stress and job attitudes. The present study, therefore, tested the dimensions of the predictors to help deal with job embeddedness holistically. After running a hierarchical regression analysis for the individual predictors, the result indicated that all the dimensions of occupational stress were not significant in predicting job embeddedness. However, working conditions recorded a more predictive ability in job embeddedness as compared to the other dimension of occupational stress. Work itself, a facet of job satisfaction had a more significant predictive ability in job embeddedness as compared to the other facets of job satisfaction whiles continuance commitment accounted for a significant predictive ability in job embeddedness than normative and affective commitment. Although these dimensions are all important in explaining job embeddedness and other outcomes, the investigation on the dimensions gives the Ghana Navy the idea of which facet to prioritize to achieve positive outcomes including job embeddedness.

### **5.2.3 Job Satisfaction and Organizational Commitment as moderators in the relationship between Occupational Stress and Job Embeddedness.**

The study's fourth hypothesis was to determine whether job satisfaction had a moderating effect on the link between occupational stress and job embeddedness. Specifically, it was hypothesized that job satisfaction will moderate the association between occupational stress and job embeddedness such that high level of job satisfaction weakens the link between occupational stress and job embeddedness. Findings from this research indicated that job satisfaction moderated the relationship between occupational stress and job embeddedness with the interaction term accounting for 0.6% of the variance in job embeddedness. However, the simple slope analysis in this study indicated that high level of job satisfaction enhanced the effect of occupational stress on job embeddedness which was contrary to the stated hypothesis. At a particular level of occupational stress, job satisfaction levels affected job embeddedness in that high stressed personnel with higher job satisfaction tend to experience high job embeddedness and vice versa i.e., personnel with low levels of job satisfaction with low levels of stress tend to record low levels of job embeddedness. The role of job satisfaction playing a moderating role was contradictory to a study conducted by Darat et al. (2017) who observed interaction effects of job embeddedness and satisfaction on organizational deviance, interpersonal deviance and customer related deviance. Their results indicated that job satisfaction moderated the relationship between job embeddedness and organizational deviance only such that, high job satisfaction weakened the link between job embeddedness and organizational deviance. Similarly, Dechawatanapaisal (2018) in his study found out that job satisfaction played a moderating role in the relationship between job embeddedness and quit intention such that the relationship reduces when job satisfaction is high which was inconsistent with this present study. Additionally, the slope analysis in his study indicated that less enmeshed workers with lower levels of job satisfaction tend to experience

turnover intention. Khalid et al. (2012) in their study also identified results contrary to this present study when they found out that supportive leadership played a moderating role in the relationship between stress and performance such that supportive leadership buffered the association between stress and performance.

The fifth hypothesis of this study proposed that organizational commitment will have a moderating effect on the relationship between occupational stress and job embeddedness such that high organizational commitment will weaken the link between occupational stress and job embeddedness. Results from this research indicated that organizational commitment moderated the relationship between occupational stress and job embeddedness with the interaction term accounting for 0.6% of the variance in job embeddedness. However, results from the slope analysis indicated that high level of organizational commitment enhanced the effect of occupational stress on job embeddedness which was contrary to the stated hypothesis. Thus, the prediction was inconsistent with the results in the present study. Although high organizational commitment enhanced the effect of occupational stress on job embeddedness, personnel tend to have higher scores on job embeddedness than personnel with low organizational commitment. However, during the review of literature, the finding contradicts evidence presented by Norris (2004) who explored the link between workplace stressors and turnover intention and found out that the dimensions of organizational commitment (affective, normative, and continuance) did not moderate the relationship between workplace stressors and turnover intentions.

The findings from the moderating effects of job satisfaction and organizational commitment in this current study, therefore, poses a challenge to the Job Demand Resource model. This is because although high levels of job satisfaction and organizational commitment provide the needed resources for personnel, it increased the effect of job demands (stress) on positive

outcomes (job embeddedness) in the Ghana Navy. According to Bakker et al. (2007), the JD-R model showed evidence of buffering effects of job resources which was contradictory to the enhancing role of the high levels of moderators (job attitudes) on the effect of stress on job embeddedness in this present study.

The surprising outcome (increase in the effect of stress at high level of job attitudes) might be as a result of personnel in the Ghana Navy not perceiving stress to always play a negative role in their health but rather as a force that improves their accomplishment at the workplace to enhance motivation and performance. Thus, personnel experienced challenge stress as opposed to hindrance stress as predicted. Legg (2018) also indicated that stress (good stress) had its benefits which include improvements in cognition and alertness, helping one to escape from unpleasant situations, and making one tough. Also, the facets in the occupational stress scale used in the present study might not capture all the stressors affecting personnel which led to the regression and moderation analysis outcome of the current study. Although there are other job resources including autonomy, social support, feedback, role clarity, job security, team climate, job involvement among others, the study utilized only two job attitudes (job satisfaction and organizational commitment) that couldn't play a buffering role in the relationship between occupational stress and job embeddedness as predicted. However, in the JD-R model based on additive effects (see Figure 2), a section indicates that when job demands and resources are high, personnel will experience strain and motivation. The study is therefore consistent with the JD-R model based on additive effects in that personnel with high levels of stress and higher levels of job satisfaction and commitment tend to experience higher levels of job embeddedness. This gives indication that job satisfaction and organizational commitment should be enhanced while stress

in the organization be altered into challenging ones to influence job embeddedness among personnel in the Ghana Navy.

Additionally, since personnel remain in the Ghana Navy and continue to enjoy the existing resources like the satisfaction they get, the finding, therefore offer support for the COR theory to explain why personnel remain in the workplace to preserve the existing resources that hold their values, and acquire additional ones.

### **5.3 Implication of the study**

The main objective of the study was to examine the association between occupational stress and job embeddedness while exploring the moderating effects of job attitudes among personnel of the Ghana Navy. The study outcomes were congruent with this aim in that it established that occupational stress and job attitudes influenced job embeddedness.

There are both theoretical and practical consequences to the results of this study. Findings hold implications for high command and leaders in the Ghana Navy, the Ghana Armed Forces, and other organizations to outline measures that enhance the productivity and wellbeing of the organizations in the current changing working condition.

#### **5.3.1 Theoretical Implications**

Theoretically, the Job Demand Resource model proves that job demand could result in negative outcomes among personnel of the Ghana Navy if demands in the work are overwhelming, and when there are enough resources, positive outcomes are precipitated. However, the study indicated a contradiction where personnel who experienced an increase in occupational stress experienced an increase level in job embeddedness. Further, personnel with high job satisfaction and organizational commitment reported an increase level of job embeddedness in the organization

which was consistent with the prediction of the theory. Additionally, the moderation effect of the job attitudes enhanced the relationship between occupational stress and job embeddedness. Thus, personnel with high job attitudes recorded significant stress at the same time felt highly embedded in the service than personnel with lower levels of the job attitudes.

The study also adopts the COR theory to establish why personnel remain in the workplace to preserve the existing resources that hold their values and attain supplementary ones from the exchange process in the organizational context since accumulated and replenished resources breeds positive consequences. A great deal of research that supported the theory had come from other geographical and work contexts, so it was necessary to conduct explorations before applying it to the current situation.

### **5.3.2 Practical Implications**

The research, therefore, provides evidence from Ghana and specifically within the military context and support has been identified for the theory. Also, the finding of this study will add to the literature on job embeddedness in Ghana and address issues regarding embeddedness in the organization. The study would be essential for high command and personnel of the Ghana Navy to gain an empirical understanding of how occupational stress, job satisfaction, and organizational commitment influence job embeddedness. Thus, the study would help the Ghana Navy ensure measures to promote job attitudes (job satisfaction and organizational commitment), manage occupational stress and increase the job embeddedness of personnel. By sharing this knowledge, personnel also can act as a vehicle to assist high command implement appropriate procedures to enhance embeddedness and reduce the early voluntary release and AWOL incidences affecting not only the Ghana Navy but the Ghana Armed Forces as a whole.

### **5.3.2.1 Addition to Existing Research**

Demonstrated in the current research is that occupational stress and job attitudes are important variables that need to be critically considered when dealing with the retention of personnel. The study will also be beneficial to policymakers and high command since it would be valuable to the management and administration of the human resource of the Ghana Navy. Thus, findings could be used in policy prioritizing to enhance job embeddedness and retention. The results of the study, therefore, supplement the current understanding of the impact of occupational stress and job attitudes on job outcomes like job embeddedness. Additionally, the enhancement of the current study was achieved by critically focusing on the dimensions of the measures and their predictive ability towards job embeddedness. The study attempted to add to the current understanding of the job embeddedness model by focusing on the relationship of the dimensions of the predictors and then considering factors that are controllable by organizations to possibly avert low levels of embeddedness in the Ghana Navy.

### **5.3.2.2 Releasing Less Embedded Personnel on Request**

As job embeddedness has been recognized to be a positive element that ensure organizations maintain their human resource, it comes with some drawbacks which has to do with keeping personnel who are less embedded in the organization. Even though job embeddedness emphasizes employee retention, employee turnover may be preferable to keeping employees who do not fit the organization's values and goals or who do not want to be in the organization. According to Crossley et al. (2007), “a potential downside of job embeddedness that warrants consideration is that people who feel stuck in an unfavourable job may lose motivation, experience frustration, and even engage in counterproductive workplace behaviours”. To effectively design and implement these job strategies to enhance retention, authorities must first understand the extent

to which their personnel are currently embedded in the workplace. Effective exit interviews should be conducted by qualified authorities and professionals in the various units and commands of the Ghana Navy to look out for less embedded personnel who request to leave the service. These personnel are not to be denied their release when they request since their exit could benefit the service instead.

### **5.3.2.3 Adopt Effective Human Resource Strategies**

For personnel to feel attached to the organization, human resources practices must be implemented appropriately and consistently (Dechawatanapaisal, 2018). Therefore, several HR strategies can be employed by the Ghana Navy to improve the factors that embed personnel. Unique human resource practices should be given adequate attention, and how each intervention affects responses to embeddedness should be examined. HR practices like effective performance appraisal, employee selection and recruitment practices, recognition, effective training system, career development, succession plan, strong psychological contract, mentorship and coaching, effective leadership, career advancement opportunities, compensation, and employee appreciation are to be implemented to best address organizational needs as it would be of significant value for higher command in the GAF, researchers, interventionists and industrial players to help enhance job embeddedness and retention.

### **5.3.2.4 Recognize Organizational Stressors and Provide Stress Management Techniques**

The findings of this study suggest that authorities or high command should be aware of the impact of occupational stress on personnel. There are harmful stressors known as hindrance stress that interfere with performance and organizational goals. On the contrary, there are stressors that contribute to performance opportunities and development in the organization. These are known as

challenge stress. According to Horan et al. (2020), these two categories of stress are theorized to exhibit differential relationships with strain, with hindrance stress being more consistently linked to psychological, physical or behavioural strain while challenge stress may result in strain but at the same time are energizing and provide opportunities for feeling of accomplishment and development. The outcome of this current study indicates that not all stress poses harmful threat to personnel in the Ghana Navy as results indicated that an increase in stress resulted in a significant increase in job embeddedness. However, irrespective of the type of stress that emanates from the organization, appropriate stress management techniques should be employed to enhance personnel health and wellbeing in the organization. This is because both stressors (hindrance and challenge stress) are identified to often lead to exhaustion due to the heightened brain and body activity associated with stress (LePine et al., 2004).

According to Fila et al. (2016), stress management techniques should be employed to reduce the demands posed on personnel in the organization and this starts by targeting key stressors through the generation and understanding of exactly the primary stressors using organizational surveys or interviews. It is also suggested for additional resources to be allocated and the necessary attention paid to the psychosocial context of the workplace to fight stress. As suggested by ILO (2016), stress in the organization can be managed if management and organizational interventionists ensure adequate staffing at all levels, allow workers to have a say and be free to express their grievances, ensure reasonable and predictable working hours, assign reasonable deadlines, maintain a workplace free from physical and mental violence, ensure supportive relationships between supervisors and subordinates, encourage personnel to discuss conflicting demands between work and home, define tasks clearly, assign tasks according to competence and experience, utilize skills of personnel, ensure transparency and fairness in dealing with grievances,

take account into ergonomic aspects to limit stress and maintain a safe and conducive working environment.

Additionally, psychosocial risks and work-related stress will be ameliorated if organizations are educated on how to prevent them (ILO, 2016). In view of this, adequate training for conflict prevention and management should be carried out to ensure that personnel feel at ease with everyone in the organization. Factoring of job redesign to better align the balance between stress and resources, workload reduction, flexible work arrangements, personnel empowerment, ensuring the feeling of competence, and creating a psychosocial safety climate are all suggested ways to mitigate stress in the organization (Fila et al., 2016). Furthermore, some proposed stress management techniques include meditation training, exercises, yoga instruction, and coping skills (accepting what you can't change). Ensuring work-life balance is essential to increasing productivity and decreasing stress, as it allows employees to stay healthy and work with a positive outlook (Woo et al., 2017). Also, taking mental health seriously and appreciating the role of psychologists as well as establishing wellness centres in the various units and commands of the Ghana Navy and the Ghana Armed Forces would be beneficial to personnel. The wellness centres for instance would help provide mental health awareness training and education for all personnel as well as provide support to enhance resilient and mentally strong personnel for greater performance and productivity.

#### **5.3.2.5 Promote Factors to Improve Job Satisfaction and Commitment Levels**

Compared to highly satisfied and committed employees, less embedded employees who perceive a lower level of job satisfaction and organizational commitment have a higher likelihood of leaving the organization. Job satisfaction and especially organizational commitment played an integral role in predicting job embeddedness as well as affecting the association between

occupational stress and job embeddedness. High command should pay attention to personnel levels of satisfaction and commitment in the organization that serve as determinants of their job embeddedness. This can be achieved by measuring personnel job attitudes at regular intervals to determine how they react to their changing work environment. Given this, high command should therefore channel enough resources to increase the satisfaction and commitment level of personnel in the organization. The following are proposed ways to improve the job satisfaction and commitment of personnel:

### **Improve Working Conditions and Environment**

Since the work itself contributed significantly to job embeddedness of personnel, authorities should evaluate the fit between personnel work interest and on the intrinsic parts of their job to create a work environment that is challenging and interesting to personnel. The work itself as a facet of job satisfaction played a critical role in predicting embeddedness as personnel are concerned with a comfortable and conducive physical working environment. However, it should be noted that working conditions such as good temperature, lighting, spacious offices, furniture, ventilation, hygiene, working hours and other work resources will provoke positive performance and enhance job embeddedness among personnel. Additionally, authorities in the various units and commands of the Ghana Navy are to create a conducive and satisfactory environment to personnel by clearly indicating how things are done to prevent confusion and ambiguity. Various heads of department and senior ratings<sup>4</sup> in various units and commands should help young personnel or ratings by taking time to explain in detail how tasks are carried out as well as providing the needed support necessary to carry out those tasks. To get the best out of

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<sup>4</sup> Senior ratings are the senior non-commissioned officers/personnel of other rank status of the Navy. In the Ghana Navy, personnel with the rank of Petty Officer Class 2 (sergeant) above are classified senior ratings.

personnel, high command of the Ghana Navy as well as the GAF, should create a much more conducive work environment by mounting chimneys to draw away factors that influence stress in the various units and commands as well as building walls to conserve the required resources (satisfaction and commitment) needed to protect personnel from embarking on early voluntary release and AWOL.

### **Increase in Pay and Other Allowances**

Although pay is a predictor of job satisfaction, high command should first consider that pay alone is unlikely to create a satisfying and committed work environment. However, negotiations should be made to the government to review the pay and allowances of personnel in the GAF frequently to promote a comfortable lifestyle for personnel and their families. According to Spector (2012), there are workers making minimum wage who are satisfied with pay, whereas other workers are dissatisfied with six and even seven figure salaries. Therefore, education on finances should be carried out consistently by the appropriate authorities (Forces Pay Regiment) of the GAF to render financial advice to personnel on how best to manage their finances to avoid unethical behaviours and illegal ways of making money that will compromise on professionalism as well as destroy the reputation of the GAF.

### **Equitable Reward System**

The Ghana Navy to enhance satisfaction and commitment in the service should avoid giving rewards and recognition inequitably. Personnel should therefore receive equal and appropriate sanctions of their behaviour and input from authorities i.e., high performing personnel should be recognized and rewarded well enough to encourage others to exert more effort in the performance of their duties. Rewards to personnel should be done consistently and frequently and

this could be in the form of awards (coffee mugs, plaques, and uniforms), praise, time off or leave, financial incentives, United Nations (UN) operations and the provision of interesting work. Although this reward practices have been in practice in the service, it should be reviewed and improved.

### **Effective Supervisor and Co-Worker Support**

Research indicates that personnel who enjoy working with supervisors and co-workers will be more satisfied with their jobs (Mosshoder et al., 2005 cited in Aamodt, 2016). We all have had supervisors and co-workers who made our jobs unbearable, and we have had supervisors and co-workers who made our jobs fun to have. To increase satisfaction and commitment in the organization, leaders and co-workers are encouraged to communicate a feeling of confidence and trust in other personnel. Various heads of department and senior ratings in various departments are to be fair and firm to all personnel under their jurisdiction. Any sign of nepotism, prejudice and insolence should be eschewed by those in authority. Workers spend a significant amount of time and lives at the workplace and this means that they are instinctively inclined to build relationships with their co-workers and supervisors. A good and healthy relationship between supervisors and subordinates is very crucial because of its effect on wellbeing, performance and productivity. Supervisors should therefore pay attention to the needs of personnel and provide timely solutions to these concerns. It is observed that most of these relationships are often neglected and as a result, the workplace morale is compromised. High command or authorities in various units should provide opportunities for co-workers and supervisors to build closer bonds with each other to help develop a robust and collaborative network since strong bonds could encourage the development of a more positive, satisfied and committed personnel. Strong bonds could be achieved by organizing more fun times, games, social gatherings among others. Mentorship is a critical element

that seems not to be a popular practice in the GAF. Mentorship should therefore be embraced in various units and commands of the Ghana Navy and GAF as a whole to help young personnel to develop. Mentorship in the GAF is very important as it could provide young soldiers with guidance, support, and the necessary resources to reach their goals and develop personally and professionally. Senior officers and senior soldiers should lead exemplary lives and serve as models, counselors and guides to provide support, perspective, offer constructive feedback and help navigate challenges of personnel under them. Also, the issue of camaraderie should be encouraged to help personnel have a sense of belonging and unity in the service. Personnel are also encouraged to work harmoniously together devoid of back biting and unhealthy competitions.

It is also indicated that lack of effective communication between supervisors and employees in the workplace result in the dissolution of workplace productivity, working relationships and happiness within the workplace. To resolve this issue, there should be clear communication for personnel to understand what is expected of them, how to react to changes and what policies they should be following since clear communication could potentially increase personnel commitment level and loyalty. Not only would positive job attitudes be accounted for when these factors stated are implemented, but the performance and wellbeing of personnel would be enhanced in an organization with effective supervisory and coworker support.

### **Addressing Promotion Challenges**

In this study, there is evidence that promotional opportunities affect job satisfaction. This is because personnel desire for promotion is strong for different reasons. These may include the desire for higher pay and the desire for social status and growth among others. Promotion in the Ghana Navy is considered a major predictor of why personnel choose to stay in the organization. To be promoted, personnel need to fulfil the basic requirements needed to facilitate a smooth

promotion. The introduction of the billet system of promotion in the GAF is perceived to be creating lots of controversies. To avoid this misunderstanding, leaders in the various commands should educate personnel on the promotion process and encourage the young personnel on what to do to enjoy their merited promotions. Education should not only be carried out to personnel in the various units and commands but should be extended to the recruit training centres to orient and elucidate young recruits of the GAF on the promotion process to avoid confusion in the near future.

With such a strong relationship between occupational stress, job attitudes, and job embeddedness in the current study, high command, personnel and other stakeholders in the Ghana Navy and the Ghana Armed Forces should put measures that will ease personnel of their unfavorable work demands to avert the consequences associated with stress in the organization as well as create platforms to enhance satisfaction and commitment levels of personnel at the workplace.

### **5.3.3 Benefits of the Study to the Ghana Navy**

Organizations get significant benefits from scientific research which in tend help them to remain relevant and productive. Scientific research is the way to go for organizations to prepare themselves to sustain and overcome hurdles. It is therefore imperative for the Ghana Navy to embrace this research to assist in ameliorating issues pertaining to early voluntary release and AWOL incidences. The study could improve the relevance of scientific research as well as personnel administration in the service by ensuring that results obtained address one of the most pressing administrative problems i.e., early voluntary release and AWOL.

The study would enable the Ghana Navy to successfully carry out environmental scan and assess organizational strengths and weaknesses to predict future behavioural occurrences among

personnel and prepare itself in a proactive manner as opposed to being reactive hence making the service more operational, productive and successful. The study would also assist the service in providing a clear path that facilitates alignment of activities and resources towards enhancing retention and improving the wellbeing of personnel. Additionally, the study would help the Ghana Navy appreciate the role of psychologists (i.e., industrial and organizational psychologists) in Ghana and build a collaborative force with key institutions like the Department of Psychology of the University of Ghana to provide consistent psychological and mental health services for personnel. Furthermore, this research would assist high command of the Ghana Navy in policy prioritizing that could guide senior officers, appointment holders and other personnel at the administrative levels to provide platforms in their various units and commands to recognize and deal with occupational stress as well as provide an enabling and conducive environment to enhance satisfaction, commitment and job embeddedness of personnel.

#### **5.4 Limitations of the Study**

According to the study's findings, a significant contribution is made to the literature and has enhanced the scientific understanding of factors that influence job embeddedness. However, despite the best efforts, the current research has some flaws. The limitations of the present study range from limited time and resources as well as the proximity of the units and commands in the Ghana Navy, the choice of design, theoretical challenges and other factors.

Although the sample size obtained was encouraging due to the recommendations of researchers like Tabachnik and Fidell (2007), efforts towards obtaining more responses were curtailed due to personnel feeling hesitant to participate in the study because some perceived the items of the questionnaires to be too many. Others also complained of being too busy to fill the questionnaires while some authorities were reluctant to release their personnel to participate in the

study because of conventions governing the military not to disclose information for public perusal since unauthorized disclosure of information could be detrimental to the interest of the nation. Even though the authority was sought from high command, some personnel were still reluctant to divulge information. Some personnel were also not available due to postings and drafts to other units outside the jurisdiction of the Ghana Navy. Some were deployed to operations outside the command while others were engaged in United Nations (UN) peacekeeping operations. Data was collected during the Covid-19 outbreak and due to that, personnel were entreated to observe social distance and other protocols. To follow directives, the Ghana Navy decongested ships, departments and offices by employing a shift system to ensure strict compliance of covid protocols. This resulted in the availability of only few personnel at various units and command during the time of the research which delayed the research even though approval was given prior to data collection. The availability of more personnel/ratings during the data collection phase could have increased the sample size which would be suitable to make the findings more generalized.

Also, the proportion of females among the respondent was less, and as a result, the research could not generate evidence conclusive enough about females to make effective comparisons. This can be attributed to the fact that the Ghana Armed Forces in general is male-dominated. Since the units and commands of the Ghana Navy are spread across different geographical locations, the researcher had to spend more time commuting from one unit to the other (i.e., HQ - Burma Camp, ENC - Tema, WNC and FOF - Sekondi, and NAVTRAC - Nutekpor) to obtain the required sample size needed for the study.

The study utilized the quantitative cross-sectional survey design. This was proven by the collecting of data from self-report surveys. Participants were limited to express their true opinions

about their response due to the nature of the survey used which is quantitative and close-ended. Hence, this limited detailed and subjective views from participants.

Furthermore, due to the self-report nature of the instruments used to examine the constructs, the study was not devoid of bias. However, the study was confined to describing the links that exist between the variables of interest and did not provide any explanations. Accordingly, the findings should not be employed to offer explanations of observed associations as this was not the research's aim. Finally, the instruments used in this present study were all developed to suit the Western cultures and also proposed for corporate organizations with little consideration of the military context and this was likely to pose a challenge to the findings of the study. Developing a Ghanaian-based scale considering the military environment would offer an accurate image of the state of research on the variables of interest in Ghana and specifically in the military context.

The theoretical challenge related to this study was constrained owing to the inability to get enough literature, especially those that reflect the Ghanaian context and the military profession. The limitations of the study do not conceal the originality and quality of the findings since the study may be utilized in crafting policies and interventions that aim at identifying and managing occupational stress as well as enhancing job satisfaction, organization commitment, and job embeddedness to ameliorate issues of early voluntary release and AWOL incidences among personnel of the Ghana Navy.

## **5.5 Recommendations**

Recommendations are offered to help future researchers address the shortcomings noted in this work. Future researchers should consider the mixed method approach involving a balance between qualitative and quantitative study methods which will augment the findings of this current research. Providing more comprehensive information and an in-depth analysis could be achieved

with the mixed-method approach. This could make it easier for organizations to come up with interventions that address organizational issues thoroughly. Additionally, the qualitative approach which is an explanatory methodology could be employed in the study to offer explanatory evidence.

For research to solve problems practically, then generalizability should be considered. In this regard, effective organizational strategies could be limited due to an inadequate sample. Although the sample size was encouraging, more could be done in terms of encouraging more personnel to participate in the study. The reluctance of personnel to participate in the study was due to factors such as busy schedules and other personal reasons. Hence, effective education to highlight the enormous benefits of research to the organization should be promulgated by future researchers prior to a study. Researchers may also have to intensify the assurance of confidentiality and anonymity to make personnel feel safe and at ease to participate in the study.

It is noted that organizations that are not data-driven will implement policies based on intuition. World-class and successful organizations are driven by data and research, and if the Ghana Navy wants to improve on productivity and proactiveness, they must invest massively in research and generate data to support decision making. To help broaden the study, future researchers are encouraged to extend the research to include commissioned officers of the Ghana Navy, personnel from other arms of the Ghana Armed Forces (Army and Air force), other security services (Police, Prisons, Fire Service etc.), and other public and private institutions who have the interest in solving their organizational issues to propel their development agenda.

The reliance on Western culture developed scales for use in the Ghanaian context also posed some challenges to the findings of the study with regards to respondents' general comprehension of the items. Future research should therefore invest more resources in creating

and developing a Ghanaian based scale to offer a true image of the state of research on variables of the research in the Ghanaian context. For example, the components of job embeddedness in Europe will be different from that of Ghana hence the need to contextualize it in the Ghanaian culture as well as to furnish a true reflection of research in that field in Ghana. Furthermore, no significant changes in military policy have occurred to render the frameworks ineffective. Future research could include more strict and diverse items to examine additional facets of the constructs, allowing for a more thorough understanding of the links discovered in this study.

Additionally, the theory utilized in the study can be critically examined and future research should consider other stress theories since the JD-R and the COR model for instance do not typically consider whether demands are appraised as a challenge or hindrance stress based on the existing resources to address the demand. The research therefore gives future research prime opportunities to look at other theories including the Challenge-Hindrance Stress Model (CHM) as well as form an integration with other models like the JD-R model.

Since the current study did not emphasize demographic variables and their influence, future researchers should consider studying the effect of these variables such as gender, age, educational background, marital status on the hypotheses tested in this study. Though the current research was cross-sectional, future research should consider a longitudinal study to assess developments and changes in characteristics of personnel. Also, the present study concentrated on the personnel of other rank status also known as ratings in the Ghana Navy and this might have curtailed variation among responses despite the diversity of arms in the Ghana Armed Forces. Future studies should also consider more diversified samples to attain sound generalizability or conduct a comparative study between noncommissioned and commissioned

officers or between personnel in the Ghana Navy and personnel from the other arms of the GAF (Army or Air force).

Other characteristics of job embeddedness might be additionally examined in subsequent studies because job embeddedness is affected by various factors. Additionally, future research should uncover other factors and moderators that influence the relationship between occupational stress and job embeddedness e.g., demographic characteristics, personality, and other psychological factors.

## 5.6 Conclusions

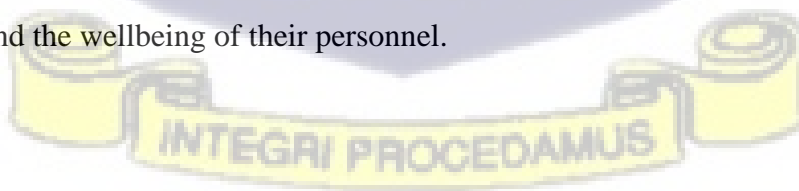
It was the aim of the study to examine the influence of occupational stress on job embeddedness and investigate the moderating roles of job satisfaction and organizational commitment on this relationship. According to findings and conclusions, the present study has been successful in attaining its objectives. The participants of the study involved 456 personnel of the Ghana Navy and data collected were subjected to statistical analyses. Results indicated that occupational stress, job satisfaction, and organizational commitment had a significant influence on job embeddedness.

The result also provided empirical proof that job satisfaction and organizational commitment moderated the relationship between occupational stress and job embeddedness such that the relationship was enhanced at high levels of the job attitudes. Although the moderator played an enhancing role, it was observed that at higher levels of occupational stress, personnel with higher job satisfaction and commitment tend to record higher job embeddedness than personnel with lower levels of job satisfaction and commitment. The present research is in agreement with evidence on the essence of workplace collective measures to identify and manage

work-related stress as well as enhance job satisfaction, commitment, and embeddedness among personnel of the Ghana Navy.

The findings have proven that, indeed, personnel feeling of stress and job attitudes significantly predicted their level of embeddedness in the organization. It was also shown that organizational commitment predicted job embeddedness better than job satisfaction and occupational stress. Additionally, since job attitudes (job satisfaction and organizational commitment) in the study moderated the relationship between occupational stress and job embeddedness as well as enhanced the effect of the relationship, they still remain a force to reckon with in promoting the retention of personnel. These findings, therefore, emphasize the investment in effective HR practices and stress management techniques to enhance job embeddedness, job satisfaction, organizational commitment and manage stress respectively. Furthermore, the goal of providing facilities necessary to enhance job satisfaction, commitment and job embeddedness is not only to make personnel feel better and loyal but to enable them to do their best and make them want to stay with the organization.

Finally, the aspiration of the researcher is that, observations made in this study will not only be useful to job embeddedness literature but will serve as a guide to the Ghana Navy, the Ghana Armed Forces, other security services, and institutions interested in the development of their organizations to promulgate and prioritize researched-based policies to enhance job embeddedness and the wellbeing of their personnel.



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APPENDICES

APPENDIX 1: ETHICAL CLEARANCE

DEPARTMENT OF PSYCHOLOGY  
SCHOOL OF SOCIAL SCIENCES  
UNIVERSITY OF GHANA



DEPARTMENTAL RESEARCH & ETHICS COMMITTEE (DREC)



9 June, 2021

Justice  
Department of Psychology  
University of Ghana, Legon  
Ghana

Dear Mr. Ackam

**Protocol number:** DREC/004/20-21

**Project title:** Occupational stress and job embeddedness among Ghana navy personnel: the moderating roles of job Attitudes

**Full Approval–Committee Reviewed Protocol**

In response to your application received on May 5, 2021, the Departmental Research & Ethics Committee of the Department of Psychology, University of Ghana has considered the above mentioned application and the protocol has been granted **Full Approval**

Any significant alteration(s) to the approved research protocol (i.e. **the Questionnaire/Semi-structured interviews, Informed Consent Form, Title of the Project, Research Approach and Methods**) must be submitted for review and approval prior to implementation. In case you have further queries, please quote the above reference number.

Note: Research data should be **securely stored** at an appropriate location and should only be destroyed after **5 years**.

This ethical clearance certificate is valid for only 12 months from the date of issue. Thereafter, re-certification must be applied for on annual basis.

We take this opportunity to wish the very best in your research.

Yours faithfully,

Annabella Osei-Tutu, Ph.D.  
Chair, Departmental Research & Ethics Committee (DREC)

Cc: Prof. Joseph Osafo, Head, Department of Psychology, University of Ghana

**APPENDIX 2: INTRODUCTORY LETTER**



**UNIVERSITY OF GHANA**  
**DEPARTMENT OF PSYCHOLOGY**  
**SCHOOL OF SOCIAL SCIENCES**

Ref. No.:..... PSYC 2/33/03 .....

June 11, 2021

Director Naval Training,  
Naval Headquarters,  
Burma Camp.

Dear Sir/ Madam,

**LETTER OF INTRODUCTION**  
**MR. JUSTICE ACKAM - I.D NO: 10497943**

The above-named student is an Mphil Year Two Psychology student in the University of Ghana.

As part of the requirement, Mr. Justice Ackam has to write and submit an original thesis. The title of his thesis is "**Occupational Stress and Job Embeddedness among Ghana Navy Personnel: the Moderating Roles of Job Attitudes**". He is planning to conduct his study at the Ghana Navy.

He is applying to your board for institutional approval/clearance to enable him carry on with his research work.

He has received approval from our department. Your assistance in reviewing his proposal is appreciated.

Yours faithfully,

Prof. Joseph Osafo  
(Head of Department)



**COLLEGE OF HUMANITIES**

• P. O. Box Lg 84, Legon, Accra-ghana.

• Telephone: +233 (0) 509 144 101 / 055 634 6580

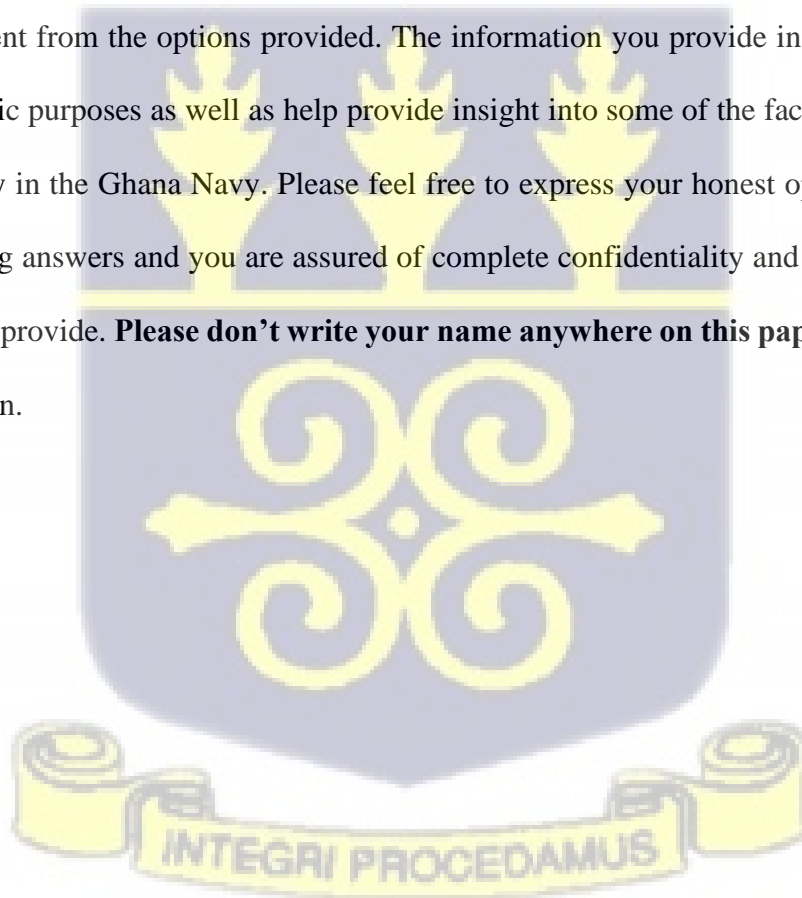
• Email: [psychology@ug.edu.gh](mailto:psychology@ug.edu.gh)

• Website: [www.ug.edu.gh](http://www.ug.edu.gh)

**APPENDIX 3: DATA GATHERING INSTRUMENT**

**UNIVERSITY OF GHANA**  
**DEPARTMENT OF PSYCHOLOGY**  
**SURVEY QUESTIONNAIRE**

Dear respondent, you are invited to participate in my academic research project which is aimed at examining factors that affect job embeddedness of personnel in the Ghana Navy. Below are a number of questions/statements to which you are required to choose an option depending on your personal evaluation. Please complete the questionnaire by ticking (✓) a response to each of the question/statement from the options provided. The information you provide in this study will be used for academic purposes as well as help provide insight into some of the factors that influence personnel to stay in the Ghana Navy. Please feel free to express your honest opinions as there is no right or wrong answers and you are assured of complete confidentiality and anonymity of any information you provide. **Please don't write your name anywhere on this paper.** Thank you for your participation.



**SECTION A: DEMOGRAPHICS**

1. Sex Male  Female

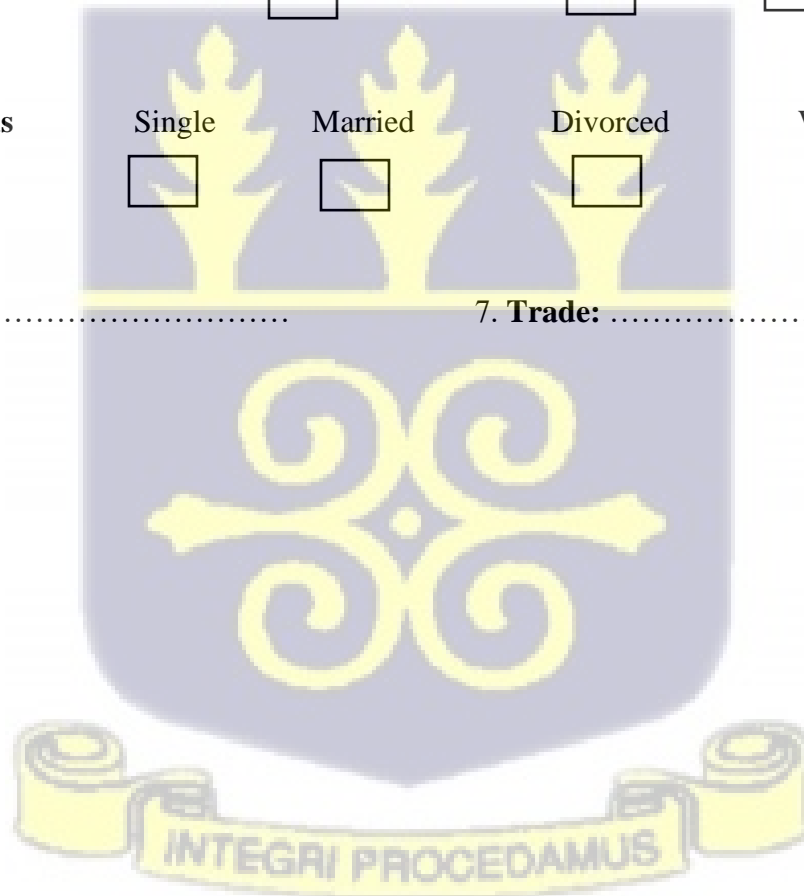
2. Age 18-25  26-30  31-35  36-40  41-50  51+

3. Rank OS  AB2  AB1  LS  PO2  PO1  CPO2  CPO1+

4. Educational background WASSCE/ equivalent  Diploma/HND  Degree  Other

5. Marital status Single  Married  Divorced  Widowed

6. Unit: ..... 7. Trade: .....



**SECTION B: OCCUPATIONAL STRESS:** Please indicate the extent to which you agree or disagree to the following statements which measures your view on occupational stress in the organization. Please tick (✓) only one of your answer in each case

<b>Workload Demands</b>	<b>Strongly Disagree</b> (1)	<b>Disagree</b> (2)	<b>Neutral (undecided)</b> (3)	<b>Agree</b> (4)	<b>Strongly Agree</b> (5)
1. My supervisor makes poorly planned changes that directly affect me					
2. My supervisor is unrealistic in the demands placed upon me					
3. My supervisor places unfair demands upon me					
4. My workload is too heavy					
5. I have had unrealistic schedule demands					
6. My supervisor places demands on me that are not placed on other personnel					
7. I've been forced to do another's work in addition to my own					
<b>Limited growth opportunities</b>					
8. My job is not challenging (does not utilize my abilities)					
9. My job is meaningless (no purpose)					
10. I see no room for growth in my job					
11. There is no future for me in my position					
<b>Personal/family issues</b>					
12. Family crises have required that I miss work					
13. Personal concerns/issues have interfered with my job performance					
14. Family illnesses have affected my job performance					

<b>Working conditions/environment</b>					
15. The work environment is uncomfortable					
16. I have limited space to complete my job					
17. I work in a dangerous environment					

**SECTION D: ORGANIZATIONAL COMMITMENT:** Please tick (✓) only one of your answer in each case that measures your commitment level to the organization.

<b>Affective Commitment</b>	<b>Strongly Disagree</b> (1)	<b>Disagree</b> (2)	<b>Neutral (undecided)</b> (3)	<b>Agree</b> (4)	<b>Strongly Agree</b> (5)
1. I would be very happy to spend the rest of my career with this organization (Navy)					
2. I really feel as if this organization's problems are my own					
3. I do not feel like “part of the family” at my organization (R)					
4. I do not feel “emotionally attached” to this organization (R)					
5. This organization has a great deal of personal meaning for me					
6. I do not feel a strong sense of belonging to my organization. (R)					
<b>Normative Commitment</b>					
7. I do not feel any obligation to remain with my organization (R)					
8. Even if it were to my advantage, I do not feel it would be right to leave my organization now					
9. I would feel guilty if I left my organization now					
10. This organization deserves my loyalty					

11. I would not leave my organization right now because I have a sense of obligation to the people in it					
12. I owe a great deal to this organization					
<b>Continuance commitment</b>					
13. It would be very hard for me to leave my organization right now, even if I wanted to					
14. Too much in my life would be disrupted if I decided I wanted to leave my organization now					
15. Right now staying with my organization is a matter of necessity as much as desire					
16. I feel that I have too few options to consider leaving this organization					
17. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives					
18. Leaving this organization would require considerable personal sacrifice					

**SECTION C: JOB SATISFACTION:** Please indicate the extent to which you agree or disagree the following statements which measures your view on job satisfaction in the organization. Please tick (✓) only one of your answer in each case

<b>Pay/Salary</b>	<b>Strongly Disagree</b> (1)	<b>Disagree</b> (2)	<b>Neutral (undecided)</b> (3)	<b>Agree</b> (4)	<b>Strongly Agree</b> (5)
1. I feel I am being paid a fair amount for the work I do					
2. Raises are too few and far between (R)					
3. I am unappreciated by the organization when I think about what they pay me (R)					
4. I feel satisfied with my chances for salary increases					

<b>Promotion</b>					
5. There is really too little chance for promotion on my job (R)					
6. Those who do well on the job stand a fair chance of being promoted					
7. Personnel get ahead as fast here as they do in other places (Army & Airforce)					
8. I am satisfied with my chances for promotion					
<b>Supervision (officers/men superior to you)</b>					
9. My supervisor is competent in doing his/her job					
10. My supervisor is unfair to me (R)					
11. My supervisor shows too little interest in the feelings of subordinates (R)					
12. I like my supervisor					
<b>Rewards/recognition</b>					
13. When I do a good job, I receive the recognition for it that I should receive					
14. I do not feel that the work I do is appreciated (R)					
15. There are few rewards for those who work here (R)					
16. I don't feel my efforts are rewarded the way they should be (R)					
<b>Co-worker</b>	<b>Strongly Disagree</b> (1)	<b>Disagree</b> (2)	<b>Neutral (undecided)</b> (3)	<b>Agree</b> (4)	<b>Strongly Agree</b> (5)
17. I like the people I work with					
18. I have to work harder at my job than I should because of the incompetence of people I work with (R)					

19. I enjoy my co-workers					
20. There is too much bickering(quarrels) and fighting at my work place (R)					
<b>Work itself</b>					
21. I sometimes feel my job is meaningless (R)					
22. I like doing the things I do at work					
23. I feel a sense of pride in doing my job					
24. My job is enjoyable					

**SECTION E: JOB EMBEDDEDNESS:** Please indicate the extent to which you agree or disagree to the following statements which measures your view on staying in the organization. Please tick (✓) only one of your answer in each case

	<b>Strongly Disagree</b> (1)	<b>Disagree</b> (2)	<b>Neutral (undecided)</b> (3)	<b>Agree</b> (4)	<b>Strongly Agree</b> (5)
1. I feel attached to this organization					
2. It would be difficult for me to leave this organization.					
3. I'm too caught up in this organization to leave.					
4. I feel tied (dependent) to this organization					
5. I simply could not leave the organization that I work for.					
6. It would be easy for me to leave this organization. (R)					
7. I am tightly connected to this organization.					

Thank you

**APPENDIX 4: RELIABILITY OF STUDY VARIABLES**

**SCALE: JOB EMBEDDEDNESS**

**Case Processing Summary**

		N	%
Cases	Valid	456	100.0
	Excluded <sup>a</sup>	0	.0
	Total	456	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.732	.732	7

**SCALE: OCCUPATIONAL STRESS**

**Case Processing Summary**

		N	%
Cases	Valid	456	100.0
	Excluded <sup>a</sup>	0	.0
	Total	456	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.883	.883	17

**SCALE: JOB SATISFACTION**

**Case Processing Summary**

		N	%
Cases	Valid	456	100.0
	Excluded <sup>a</sup>	0	.0
	Total	456	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.783	.788	24

**SCALE: ORGANIZATIONAL COMMITMENT**

**Case Processing Summary**

		N	%
Cases	Valid	456	100.0
	Excluded <sup>a</sup>	0	.0
	Total	456	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.822	.819	18

**APPENDIX 5: DESCRIPTIVE STATISTICS OF STUDY VARIABLES**

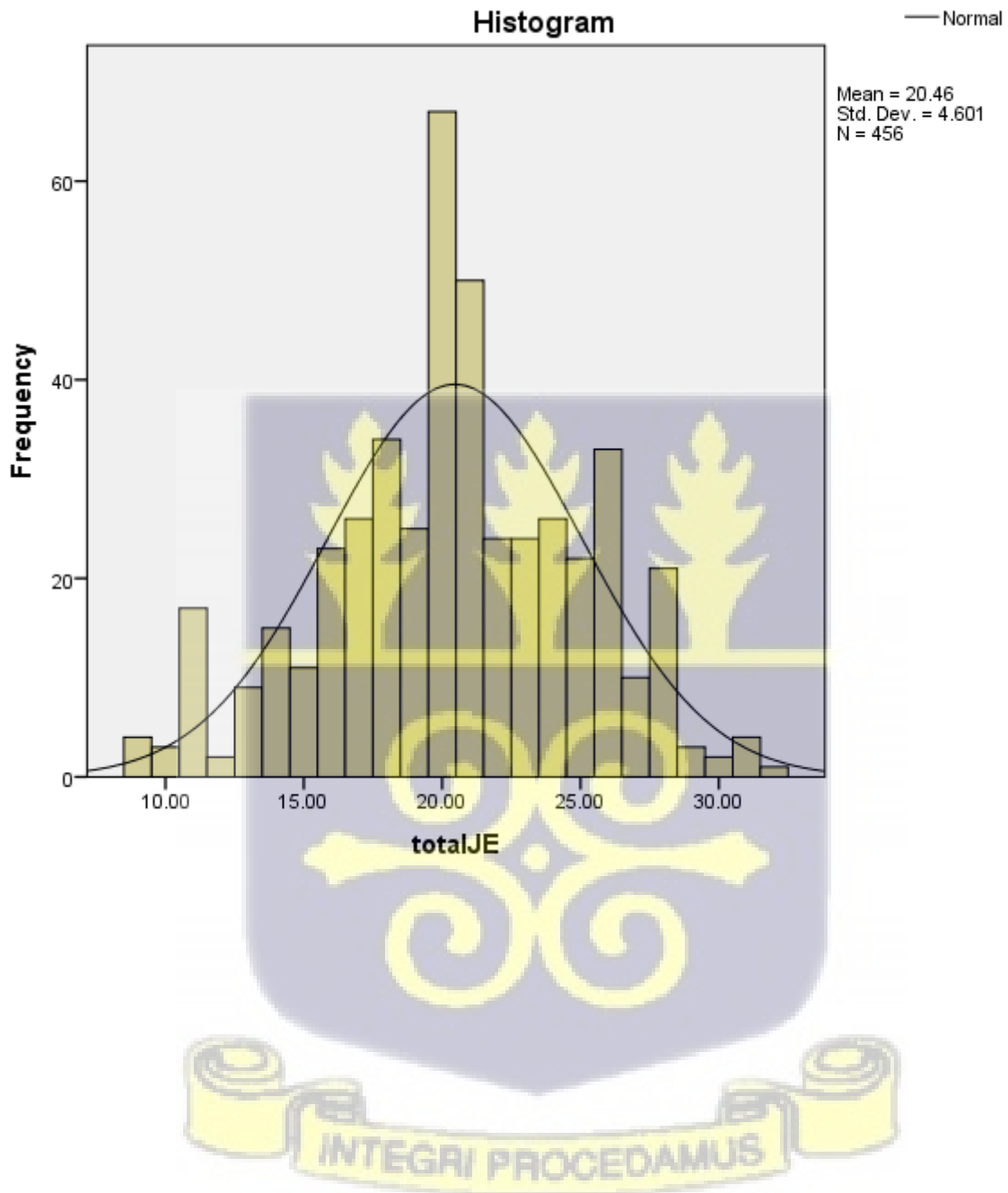
**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
totalJE	456	9	32	20.46	4.601	-.167	.114	-.234	.228
totalOS	456	17	68	39.21	11.174	.136	.114	-.503	.228
totalJS	456	50	107	78.44	11.318	.046	.114	-.136	.228
totalOC	456	33	85	58.92	9.858	-.205	.114	-.406	.228
Valid N (listwise)	456								

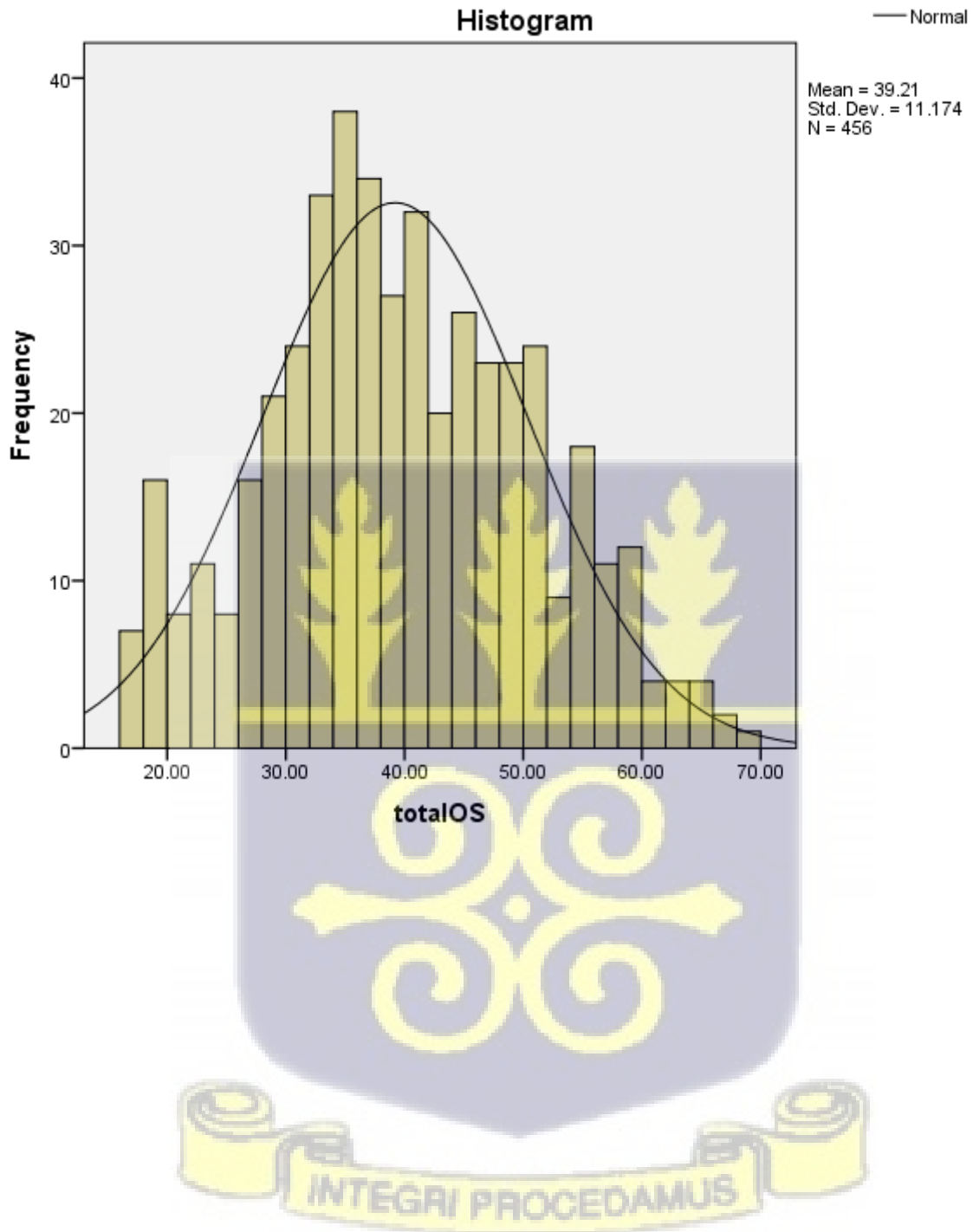


**APPENDIX 6: TEST FOR NORMALITY**

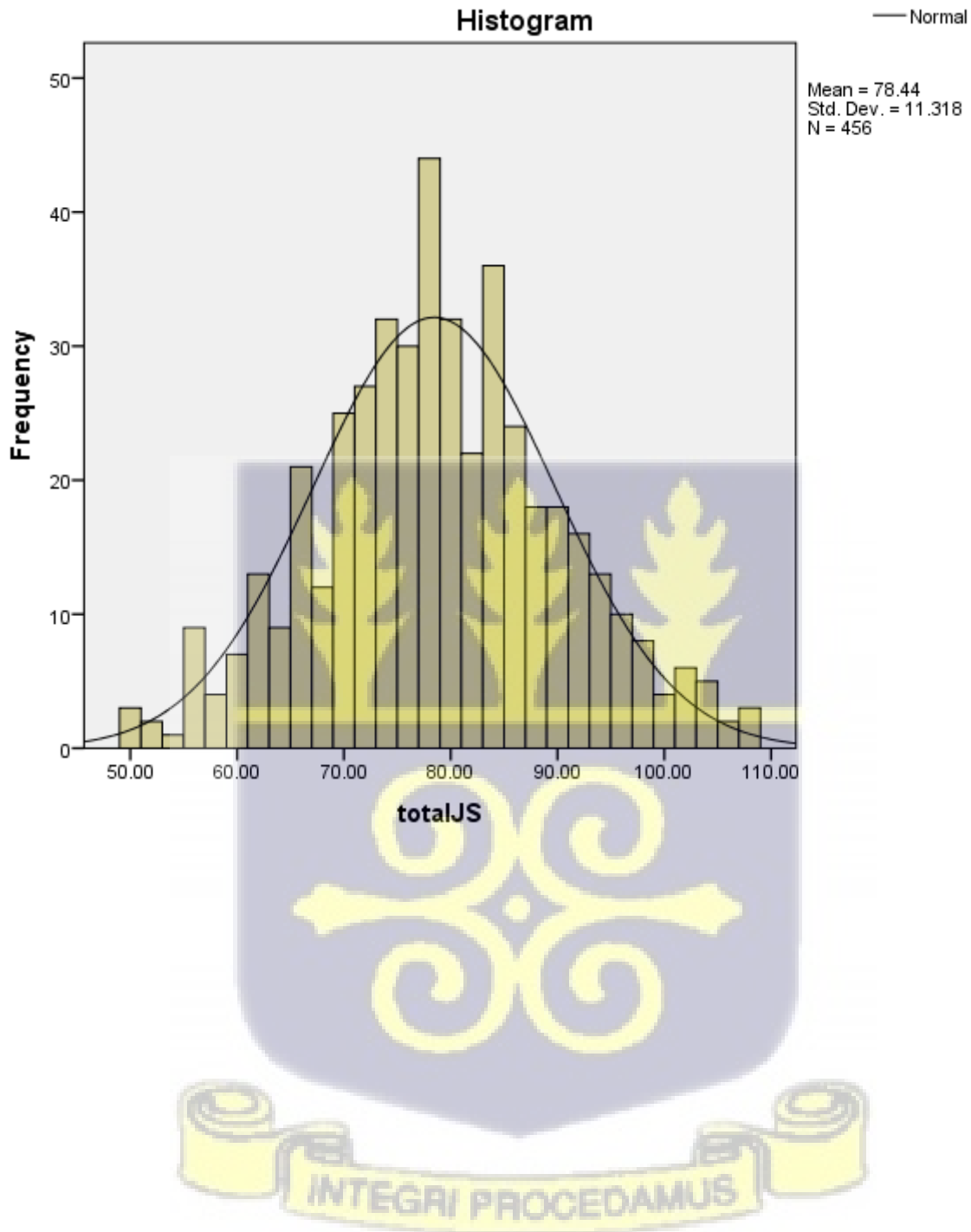
**JOB EMBEDDEDNESS**



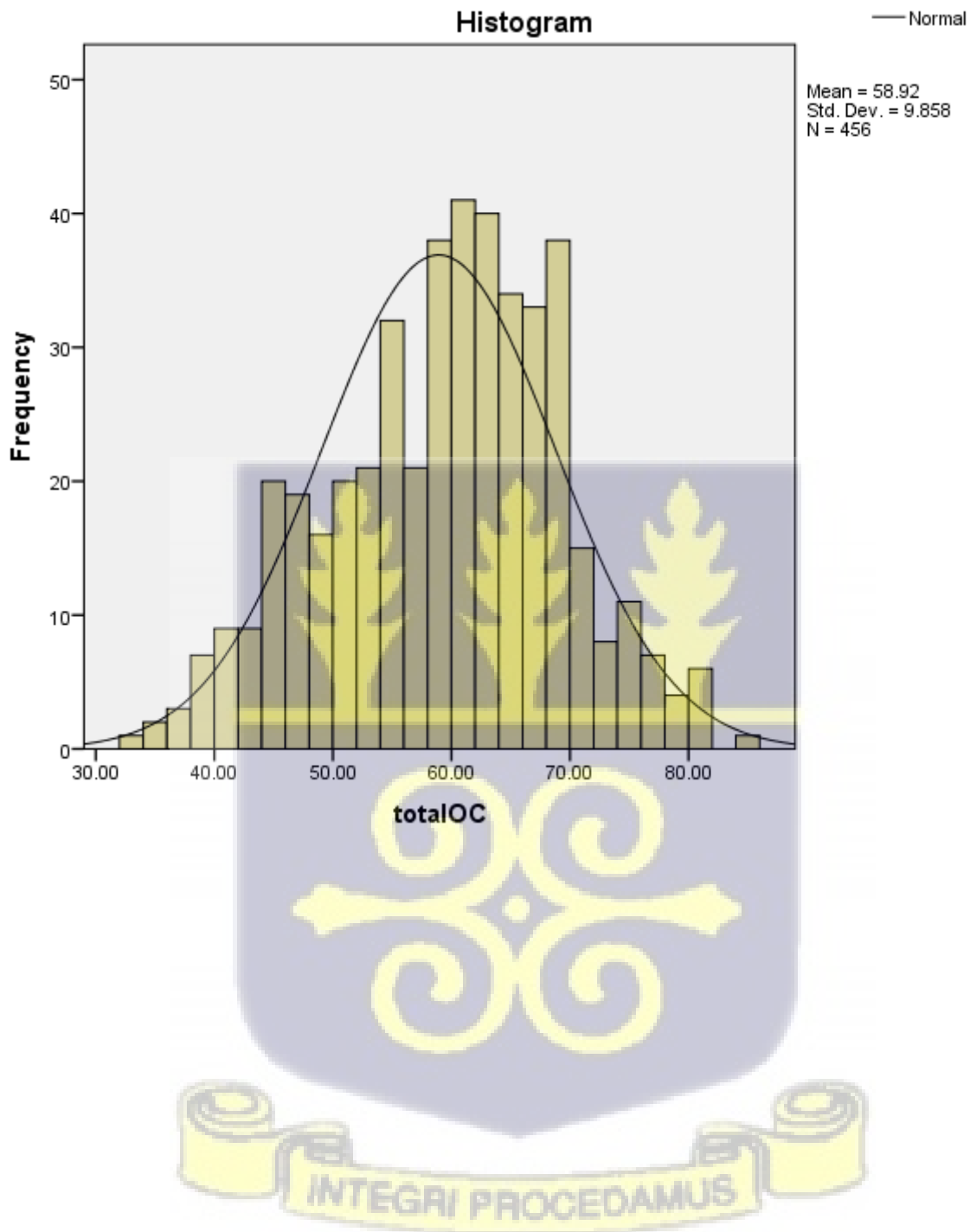
### OCCUPATIONAL STRESS



### JOB SATISFACTION



## ORGANIZATIONAL COMMITMENT

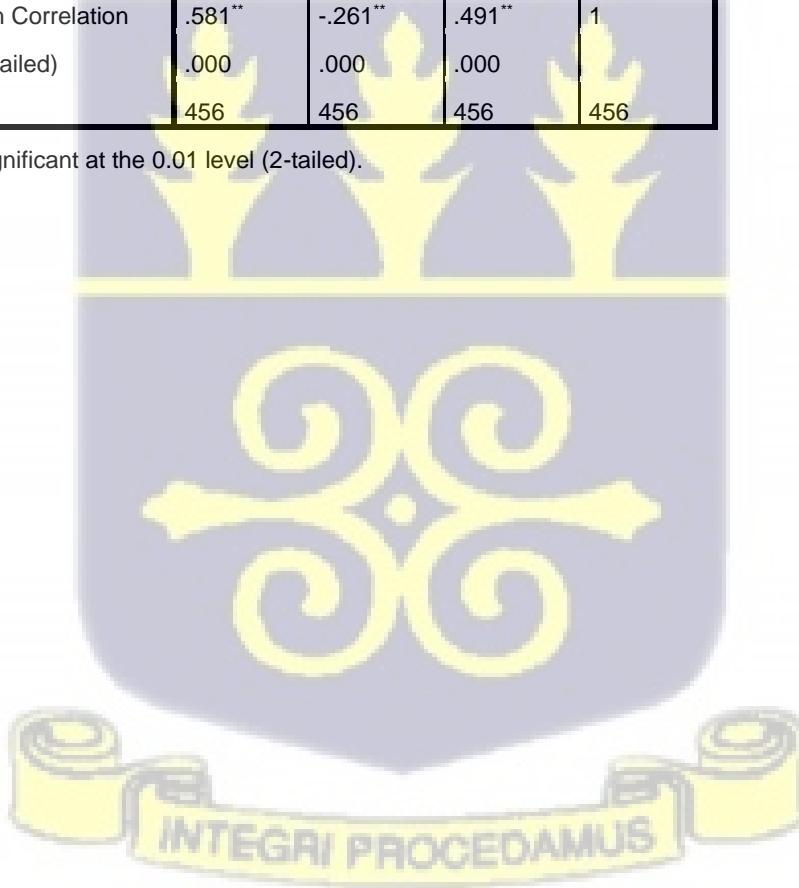


**APPENDIX 7: CORRELATION OUTPUTS BETWEEN STUDY VARIABLES**

**Correlations**

		totalJE	totalOS	totalJS	totalOC
totalJE	Pearson Correlation	1	-.121**	.370**	.581**
	Sig. (2-tailed)		.009	.000	.000
	N	456	456	456	456
totalOS	Pearson Correlation	-.121**	1	-.514**	-.261**
	Sig. (2-tailed)	.009		.000	.000
	N	456	456	456	456
totalJS	Pearson Correlation	.370**	-.514**	1	.491**
	Sig. (2-tailed)	.000	.000		.000
	N	456	456	456	456
totalOC	Pearson Correlation	.581**	-.261**	.491**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	456	456	456	456

\*\* . Correlation is significant at the 0.01 level (2-tailed).



**APPENDIX 8: CORRELATION OUTPUT FOR THE DIMENSIONS OF THE PREDICTOR VARIABLES ON JOB EMBEDDEDNESS OCCUPATIONAL STRESS**

**Correlations**

		totalJE	WKD	LGO	PFI	WC
Pearson Correlation	totalJE	1.000	-.094	-.100	-.058	-.114
	WKD	-.094	1.000	.338	.414	.587
	LGO	-.100	.338	1.000	.277	.405
	PFI	-.058	.414	.277	1.000	.456
	WC	-.114	.587	.405	.456	1.000
Sig. (1-tailed)	totalJE	.	.023	.016	.107	.007
	WKD	.023	.	.000	.000	.000
	LGO	.016	.000	.	.000	.000
	PFI	.107	.000	.000	.	.000
	WC	.007	.000	.000	.000	.
N	totalJE	456	456	456	456	456
	WKD	456	456	456	456	456
	LGO	456	456	456	456	456
	PFI	456	456	456	456	456
	WC	456	456	456	456	456

**ORGANIZATIONAL COMMITMENT**

**Correlations**

		totalJE	AC	NC	CC
Pearson Correlation	totalJE	1.000	.395	.497	.470
	AC	.395	1.000	.544	.260
	NC	.497	.544	1.000	.475
	CC	.470	.260	.475	1.000
Sig. (1-tailed)	totalJE	.	.000	.000	.000
	AC	.000	.	.000	.000
	NC	.000	.000	.	.000
	CC	.000	.000	.000	.
N	totalJE	456	456	456	456
	AC	456	456	456	456
	NC	456	456	456	456
	CC	456	456	456	456

**JOB SATISFACTION**

**Correlations**

		totalJE	PAY	PROM	SUPV	REC	COW	WI
Pearson Correlation	totalJE	1.000	.254	.279	.163	.132	.125	.418
	PAY	.254	1.000	.306	.292	.361	.227	.156
	PROM	.279	.306	1.000	.169	.232	.114	.231
	SUPV	.163	.292	.169	1.000	.296	.475	.370
	REC	.132	.361	.232	.296	1.000	.318	.145
	COW	.125	.227	.114	.475	.318	1.000	.371
	WI	.418	.156	.231	.370	.145	.371	1.000
Sig. (1-tailed)	totalJE	.	.000	.000	.000	.002	.004	.000
	PAY	.000	.	.000	.000	.000	.000	.000
	PROM	.000	.000	.	.000	.000	.008	.000
	SUPV	.000	.000	.000	.	.000	.000	.000
	REC	.002	.000	.000	.000	.	.000	.001
	COW	.004	.000	.008	.000	.000	.	.000
	WI	.000	.000	.000	.000	.001	.000	.
N	totalJE	456	456	456	456	456	456	456
	PAY	456	456	456	456	456	456	456
	PROM	456	456	456	456	456	456	456
	SUPV	456	456	456	456	456	456	456
	REC	456	456	456	456	456	456	456
	COW	456	456	456	456	456	456	456
	WI	456	456	456	456	456	456	456



**APPENDIX 9: STANDARD MULTIPLE REGRESSION ANALYSIS FOR OCCUPATION STRESS, JOB SATISFACTION, AND ORGANIZATIONAL COMMITMENT AS PREDICTORS OF JOB EMBEDDEDNESS**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.595 <sup>a</sup>	.354	.350	3.709	.354	82.694	3	452	.000

a. Predictors: (Constant), totalOC, totalOS, totalJS

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3413.633	3	1137.878	82.694	.000 <sup>b</sup>
	Residual	6219.576	452	13.760		
	Total	9633.208	455			

a. Dependent Variable: totalJE

b. Predictors: (Constant), totalOC, totalOS, totalJS

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
		B	Std. Error	Beta	t		Tolerance	VIF
1	(Constant)	-.814	1.953		-.417	.677		
	totalOS	.041	.018	.099	2.256	.025	.736	1.358
	totalJS	.066	.020	.162	3.313	.001	.599	1.669
	totalOC	.246	.020	.528	12.157	.000	.758	1.318

a. Dependent Variable: totalJE

**APPENDIX 10: HIERARCHICAL MULTIPLE REGRESSION ANALYSES FOR THE PREDICTOR VARIABLES ON JOB EMBEDDEDNESS**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.121 <sup>a</sup>	.015	.013	4.572	.015	6.787	1	454	.009
2	.378 <sup>b</sup>	.143	.139	4.268	.129	67.946	1	453	.000
3	.595 <sup>c</sup>	.354	.350	3.709	.211	147.805	1	452	.000

a. Predictors: (Constant), totalOS

b. Predictors: (Constant), totalOS, totalJS

c. Predictors: (Constant), totalOS, totalJS, totalOC

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	141.887	1	141.887	6.787	.009 <sup>b</sup>
	Residual	9491.322	454	20.906		
	Total	9633.208	455			
2	Regression	1379.823	2	689.912	37.867	.000 <sup>c</sup>
	Residual	8253.385	453	18.219		
	Total	9633.208	455			
3	Regression	3413.633	3	1137.878	82.694	.000 <sup>d</sup>
	Residual	6219.576	452	13.760		
	Total	9633.208	455			

a. Dependent Variable: totalJE

b. Predictors: (Constant), totalOS

c. Predictors: (Constant), totalOS, totalJS

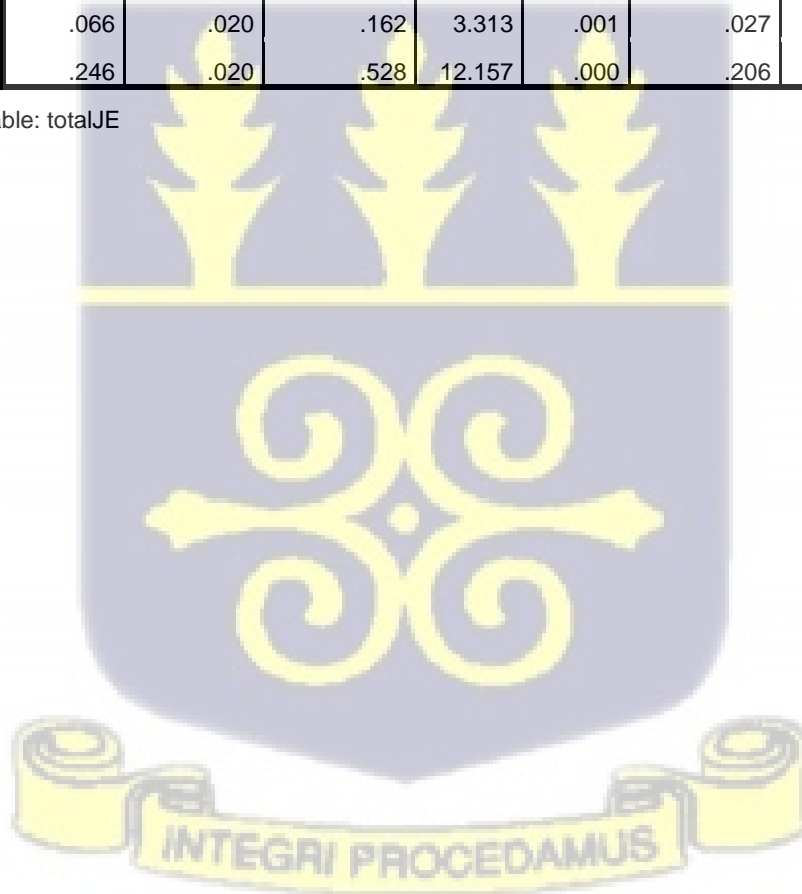
d. Predictors: (Constant), totalOS, totalJS, totalOC



**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	22.418	.782		28.667	.000	20.881	23.954		
	totalOS	-.050	.019	-.121	-2.605	.009	-.088	-.012	1.000	1.000
2	(Constant)	5.631	2.163		2.603	.010	1.379	9.882		
	totalOS	.038	.021	.093	1.839	.067	-.003	.079	.736	1.358
	totalJS	.170	.021	.418	8.243	.000	.129	.210	.736	1.358
3	(Constant)	-.814	1.953		-.417	.677	-4.653	3.025		
	totalOS	.041	.018	.099	2.256	.025	.005	.077	.736	1.358
	totalJS	.066	.020	.162	3.313	.001	.027	.105	.599	1.669
	totalOC	.246	.020	.528	12.157	.000	.206	.286	.758	1.318

a. Dependent Variable: totalJE



**APPENDIX 11: HIERARCHICAL MULTIPLE REGRESSION ANALYSES FOR THE DIMENSIONS OF PREDICTOR VARIABLES ON JOB EMBEDDEDNESS**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.131 <sup>a</sup>	.017	.008	4.582	.017	1.968	4	451	.098
2	.491 <sup>b</sup>	.241	.224	4.053	.224	21.910	6	445	.000
3	.639 <sup>c</sup>	.408	.391	3.591	.167	41.581	3	442	.000

a. Predictors: (Constant), WC, LGO, PFI, WKD

b. Predictors: (Constant), WC, LGO, PFI, WKD, PROM, REC, WI, PAY, COW, SUPV

c. Predictors: (Constant), WC, LGO, PFI, WKD, PROM, REC, WI, PAY, COW, SUPV, CC, AC, NC

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	165.240	4	41.310	1.968	.098 <sup>b</sup>
	Residual	9467.969	451	20.993		
	Total	9633.208	455			
2	Regression	2324.391	10	232.439	14.152	.000 <sup>c</sup>
	Residual	7308.817	445	16.424		
	Total	9633.208	455			
3	Regression	3933.108	13	302.547	23.460	.000 <sup>d</sup>
	Residual	5700.100	442	12.896		
	Total	9633.208	455			

a. Dependent Variable: totalJE

b. Predictors: (Constant), WC, LGO, PFI, WKD

c. Predictors: (Constant), WC, LGO, PFI, WKD, PROM, REC, WI, PAY, COW, SUPV

d. Predictors: (Constant), WC, LGO, PFI, WKD, PROM, REC, WI, PAY, COW, SUPV, CC, AC, NC

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
	1 (Constant)	22.344	.799				27.970	.000	20.774
WKD	-.025	.046	-.032	-.547	.585	-.117	.066	.620	1.612
LGO	-.090	.076	-.061	-1.182	.238	-.238	.059	.815	1.228
PFI	.010	.096	.005	.101	.920	-.178	.197	.753	1.328
WC	-.112	.095	-.073	-1.176	.240	-.299	.075	.567	1.763
2 (Constant)	6.244	2.145		2.911	.004	2.028	10.459		
WKD	-.012	.045	-.015	-.255	.799	-.100	.077	.514	1.944
LGO	.033	.071	.023	.471	.638	-.105	.172	.735	1.361
PFI	.102	.086	.057	1.184	.237	-.067	.271	.724	1.382
WC	.059	.087	.039	.682	.496	-.111	.230	.532	1.878
PAY	.272	.072	.178	3.778	.000	.130	.413	.770	1.298
PROM	.220	.068	.149	3.252	.001	.087	.353	.818	1.223
SUPV	-.027	.082	-.018	-.336	.737	-.188	.133	.578	1.731
REC	.015	.070	.010	.212	.832	-.122	.152	.762	1.312
COW	-.099	.087	-.057	-1.135	.257	-.270	.072	.682	1.466
WI	.601	.071	.412	8.434	.000	.461	.741	.714	1.400
3 (Constant)	1.679	2.035		.825	.410	-2.321	5.679		
WKD	-.005	.041	-.006	-.120	.905	-.085	.075	.494	2.023
LGO	.069	.064	.047	1.085	.278	-.056	.195	.707	1.415
PFI	-.012	.077	-.007	-.162	.872	-.164	.139	.709	1.410
WC	.042	.077	.027	.541	.589	-.110	.194	.527	1.897
PAY	.128	.065	.084	1.961	.050	.000	.256	.738	1.355
PROM	.141	.061	.095	2.305	.022	.021	.261	.787	1.271
SUPV	-.126	.073	-.084	-1.715	.087	-.269	.018	.563	1.776

REC	.089	.062	.060	1.422	.156	-.034	.211	.751	1.332
COW	-.173	.078	-.099	-2.226	.027	-.326	-.020	.672	1.488
WI	.354	.068	.243	5.209	.000	.221	.488	.616	1.624
AC	.164	.061	.132	2.665	.008	.043	.285	.542	1.844
NC	.210	.055	.194	3.847	.000	.103	.317	.527	1.897
CC	.290	.043	.288	6.691	.000	.205	.376	.723	1.382

a. Dependent Variable: totalJE



**APPENDIX 12: MODERATION ANALYSES USING THE PROCESS MACRO**

**JOB SATISFACTION AS MODERATOR**

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.5.3 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
 Documentation available in Hayes (2018). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 1  
 Y : totalJE  
 X : ZtotalOS  
 W : ZtotalJS

Covariates:  
 totalOC

Sample  
 Size: 456

\*\*\*\*\*

OUTCOME VARIABLE:  
 totalJE

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.6008	.3609	13.6504	63.6771	4.0000	451.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	6.0896	1.2030	5.0620	.0000	3.7254	8.4538
ZtotalOS	.5190	.2039	2.5455	.0112	.1183	.9198
ZtotalJS	.7796	.2244	3.4751	.0006	.3387	1.2206
Int_1	.3482	.1618	2.1524	.0319	.0303	.6661
totalOC	.2469	.0202	12.2365	.0000	.2072	.2865

Product terms key:

Int\_1 : ZtotalOS x ZtotalJS

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0066	4.6330	1.0000	451.0000	.0319

Focal predict: ZtotalOS (X)  
 Mod var: ZtotalJS (W)

Conditional effects of the focal predictor at values of the moderator(s):

ZtotalJS	Effect	se	t	p	LLCI	ULCI
-1.0000	.1709	.2418	.7066	.4802	-.3043	.6461
.0000	.5190	.2039	2.5455	.0112	.1183	.9198
1.0000	.8672	.2775	3.1249	.0019	.3218	1.4126

Data for visualizing the conditional effect of the focal predictor:  
Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
  ZtotalOS  ZtotalJS  totalJE  .
BEGIN DATA.
  -1.0000   -1.0000   19.6863
   .0000   -1.0000   19.8571
   1.0000   -1.0000   20.0280
  -1.0000    .0000   20.1177
   .0000    .0000   20.6368
   1.0000    .0000   21.1558
  -1.0000    1.0000   20.5492
   .0000    1.0000   21.4164
   1.0000    1.0000   22.2836
END DATA.
GRAPH/SCATTERPLOT=
  ZtotalOS WITH      totalJE  BY      ZtotalJS  .

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
 95.0000

W values in conditional tables are the mean and +/- SD from the mean.

----- END MATRIX -----
```

**ORGANIZATIONAL COMMITMENT AS MODERATOR**

Run MATRIX procedure:

```
***** PROCESS Procedure for SPSS Version 3.5.3 *****
      Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
      Documentation available in Hayes (2018). www.guilford.com/p/hayes3
*****
```

Model : 1  
Y : totalJE  
X : ZtotalOS  
W : ZtotalOC

Covariates:  
totalJS

Sample  
Size: 456

```
*****
OUTCOME VARIABLE:
totalJE
```

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.6008	.3609	13.6500	63.6824	4.0000	451.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	15.3427	1.5604	9.8325	.0000	12.2761	18.4093
ZtotalOS	.4875	.2024	2.4090	.0164	.0898	.8852
ZtotalOC	2.4602	.1995	12.3347	.0000	2.0682	2.8521
Int_1	.3530	.1637	2.1556	.0316	.0312	.6747
totalJS	.0664	.0198	3.3579	.0009	.0275	.1052

Product terms key:

Int\_1 : ZtotalOS x ZtotalOC

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0066	4.6467	1.0000	451.0000	.0316

Focal predict: ZtotalOS (X)  
Mod var: ZtotalOC (W)

Conditional effects of the focal predictor at values of the moderator(s):

ZtotalOC	Effect	se	t	p	LLCI	ULCI
-1.0000	.1345	.2513	.5353	.5927	-.3594	.6285
.0000	.4875	.2024	2.4090	.0164	.0898	.8852
1.0000	.8404	.2690	3.1248	.0019	.3119	1.3690

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/

```
ZtotalOS ZtotalOC totalJE .
BEGIN DATA.
-1.0000 -1.0000 17.9555
.0000 -1.0000 18.0901
1.0000 -1.0000 18.2246
-1.0000 .0000 20.0628
.0000 .0000 20.5502
1.0000 .0000 21.0377
-1.0000 1.0000 22.1700
.0000 1.0000 23.0104
1.0000 1.0000 23.8509
END DATA.
```

GRAPH/SCATTERPLOT=

ZtotalOS WITH totalJE BY ZtotalOC .

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95.0000

W values in conditional tables are the mean and +/- SD from the mean.

----- END MATRIX -----