

UNIVERSITY OF GHANA

DEPARTMENT OF PSYCHOLOGY

**HOSTILE WORK ENVIRONMENT AND INTERPERSONAL CONFLICT AS  
PREDICTORS OF COUNTERPRODUCTIVE WORK BEHAVIOUR: A STUDY OF  
WHOLESALE AND RETAIL SHOP WORKERS IN ACCRA AND KUMASI**

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**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN  
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Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**DECLARATION**

I do hereby declare that this work is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been fully acknowledged.

I bear sole responsibility for any flaws.

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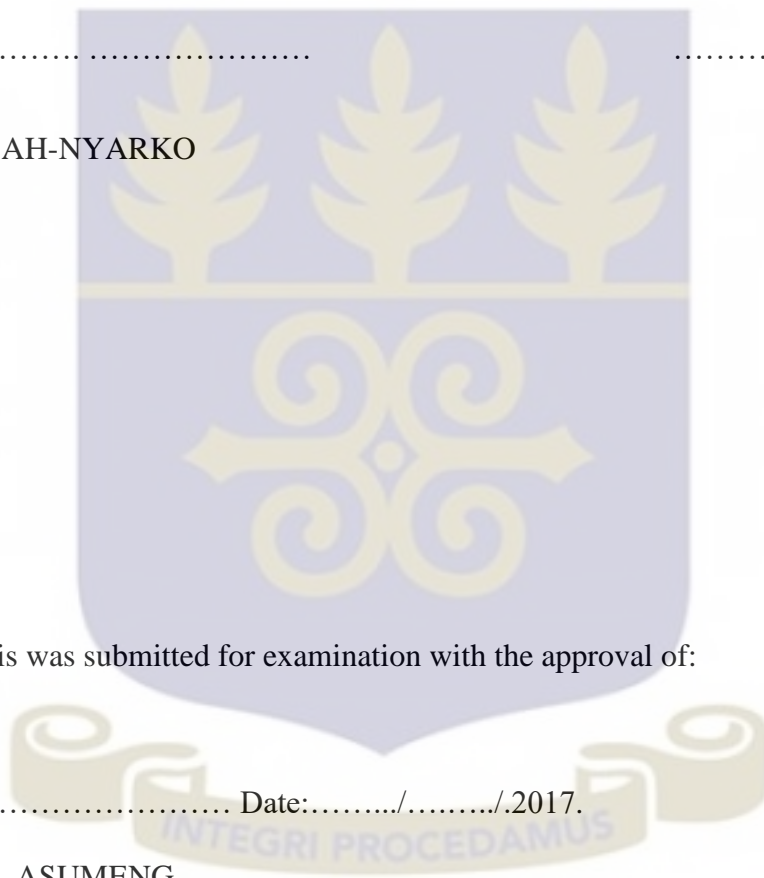
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Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**DEDICATION**

This work is dedicated to my LORD and Master Jesus Christ, my Dad and beloved Gloria Osei-Gyeabour



Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

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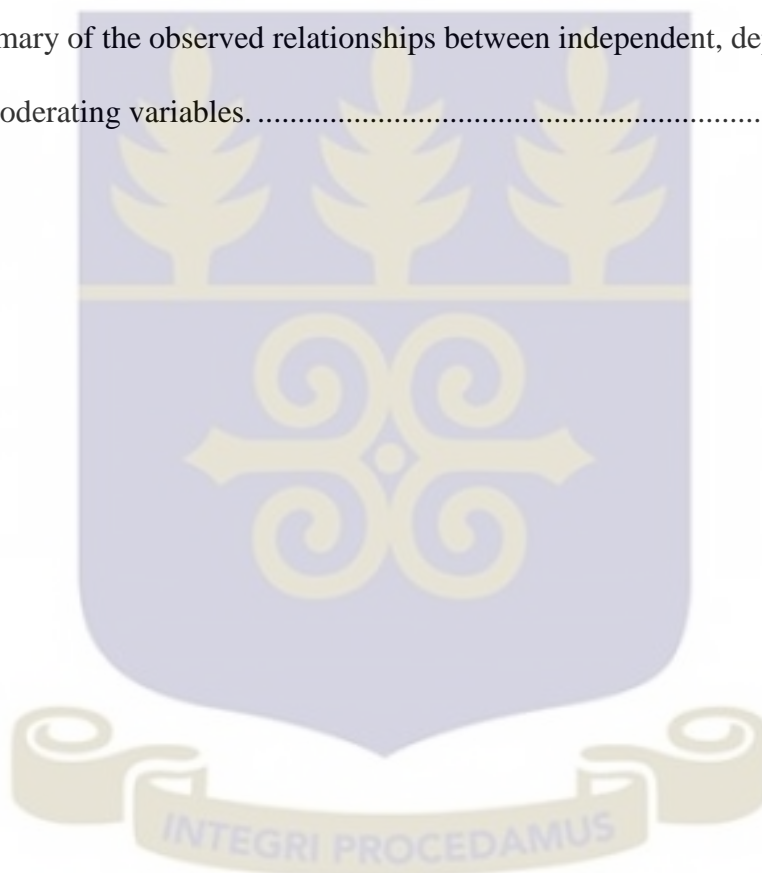
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**ABSTRACT**

The present research examines hostile work environment (gender harassment, abusive supervision, ethnic discrimination and religious harassment) and interpersonal conflict in predicting counterproductive work behaviour among wholesale and retail shop workers in Accra and Kumasi. The survey method was used to collect data from a diverse sample of 318 workers from different wholesale and retail shops in Accra and Kumasi. Hierarchical multiple regression was used to analyze the hypotheses. Results indicate that hostile work environment account for more variance in predicting counterproductive work behaviour than interpersonal conflict. In addition, gender harassment, a subtheme of hostile work environment accounted for more variance in explaining counterproductive work behaviour, followed by abusive supervision, ethnic discrimination and religious harassment respectively. The moderating analysis showed that sex and age of respondents moderated the relationship between interpersonal conflict and counterproductive work behaviour. That is female and older workers engaged more in counterproductive work behaviour than male and younger workers. It is recommended that owners of wholesale and retail shops should provide workers with respectful and conducive working environment so as to motivate them to put up their best in enhancing organizational performance.

**Key Words:** Hostile work environment, Interpersonal conflict, Counterproductive work behaviour, Sex, Age, Retail shop, Wholesale shop.



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Counterproductive work behaviours are often something owners of business do not think about and most of the time go unnoticed. These behaviours can be subtle (e.g. lateness) or perilous (e.g. fraud) in nature. Occasionally, an example of such behaviours emerge at the workplace and before anything can be done, the harm may have already been caused. According to the Association of Certified Fraud Examiners report (2016), a typical organisation loses 5 percent of its revenue in a given year as a result of counterproductive work behavior, specifically fraud. The estimated total global businesses loss as a result of this counterproductive work behaviour was 6.3 billion US dollars with an average per case being 2.7 million US dollars. In addition, reports indicate that counterproductive behaviours do have some negative consequences for employees. For instance, employees who become victims of counterproductive work behaviours report decreased job satisfaction, increased stress, intentions to quit, among other things (An & Wang, 2016; Berry, Carpenter & Barratt, 2012).

Sacketts (2002) defines counterproductive work behaviour as behaviour that runs counter to an organisation's legitimate interests. Stated differently, counterproductive work behaviour consists of volitional or intentional behaviours intended to harm an organisation or people in the organisation (Spector et al., 2006). This means that counterproductive work behaviours are deliberate actions or behaviours people engage in just to harm the organisation or its members for personal satisfaction. Therefore, the fundamental characteristic of counterproductive work behaviour is that the action itself should be intentional, but not accidental. In addition, the motivating intent should be geared towards harming the

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour organisation, co-workers, customers and/or other stakeholders. Hence, it is worth knowing that unintentional behaviours such as accident (unknowingly injuring someone at work, destroy business property etc.) and lacking skill to successfully accomplish a task at work are not counterproductive work behaviours.

According to Cohen , Panter and Turan (2012), some of these counterproductive work behaviours include: abusing others (e.g. spreading dangerous and image tarnishing rumours at work (gossip), when a worker puts up a naughty or harsh behaviour towards a client or customer); production deviance (e.g., an employee doing his or her work wrongly and intentionally working slowly when things need to get done); sabotage (e.g. an employee who intentionally wastes and destroys his or her employer's/boss' materials/supplies, equipment or property); theft (e.g., an employee stealing something belonging to the employer or co-worker, overstatement of money spent so as to cash the overstated money when released, under-invoicing and over-invoicing); and withdrawal behaviour (e.g. a worker going to work late without permission; staying home from work and feigning illness).

Counterproductive behaviour as an act of intent means there are many reasons that account for individual's engagement. These may include situational, individual and the interaction between individual and situational factors.

The situational school of thought argued that certain harsh and unfavourable situational variables at the workplace account for the reason why an employee may decide to engage in counterproductive work behavior (Martinko, Gundlach & Douglas, 2002). For instance, Bies and Tripp (2005) argued that unfair treatment at work predicts employee workplace aggression. In their study, it was revealed that employees saw their aggression at work as a retaliation to the unfair treatment they received at the workplace. To such employees, purposefully exhibiting aggression at work helps them restore justice to their

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour work environment (Bies & Tripp, 2005). In this context, employee aggression as a form of counterproductive behaviour at work should be understood as a reaction to a frustrating and unfair work environment and also serves as a coping mechanism for the employee. For example, Nyarko, Ansah-Nyarko and Sempa (2014) used social exchange and Adams equity theories to explain the relationships between injustice, interpersonal conflict and counterproductive work behaviour in corporate organisations in Accra. The researchers reported that organisational injustice had a significant relationship with counterproductive work behaviour.

Contrary to the situational perspective, the individual school of scientific researchers e.g., Martinko et al. (2002) argued that counterproductive work behaviour should be explained using individual or personal characteristics. This group of researchers has two main questions to ask. First, why is it that some workers despite the hostile nature of their work, are still productive to the extent of going beyond their expected roles and outcome? Second, why are some employees still counterproductive despite the conducive nature of their work environment? According to the individual perspective, the individual worker should be the unit of analysis and not the situation. The individual school suggests that some individual workers by nature are fond of engaging in negative behaviours at work. This school further explains that certain individuals have stable predispositions to engage in certain behaviours across time and situations hence interpret counterproductive work behaviour in accordance to these stable individual characteristics (Cohen, 2016). For example traits such as conscientiousness, emotional stability, and agreeableness have been reported to exert a differential effect on counterproductive work behaviour (Colbert, Mount, Harter, Witt, & Barrick, 2004). Moffitt (1993) differentiating between early-onset, life course persistent delinquency and adolescence limited delinquency suggests that at least some individuals (about 5%) who behave antisocially in childhood and adolescence may grow to become

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The interaction school of scientific researchers argue that occurrence of counterproductive work behaviour is not as clear cut and simple as the situation and the individual perspectives purport. It is neither the situation alone nor the individual that should be the unit of analysis. To the interactionist, counterproductive work behaviour emanates from a complex web of situational and personal variables. That is, both situational and individual variables interact to produce such negative and intentional behaviour of workers (Martinko et al., 2002). Folger and Skarlicki (1998) employing the popcorn analogy argued that the individual and situational factors interact to influence aggression at the workplace. According to the researchers, the higher the interaction, the more likely it is for employees to engage in acts of aggression/counter-productivity and as a result, more kernels are likely to pop-up. In a meta-analysis, Hershcovis et al. (2007) reported that both individual (e.g. trait anger and sex) and situational (e.g. job dissatisfaction and injustice) variables interacted to predict counterproductive work behaviour at work. Basing on the interactionist perspective, the researcher examines hostile work environment and interpersonal conflict (situational variable) and the interaction between age, gender (personal variables) in accounting for the workers engagement in counterproductive work behaviour.

The social environment at work can have both positive and negative effects on people. Among the most serious negative effects on employees are those triggered by hostile workplace environment. Most often some employers and supervisors consistently hail offensive expressions on employees, never appreciative and satisfied with work done by an employee. Likewise, a hostile work environment may manifest itself through unpleasant verbal communication and negative relationships (Johnson & Indvik, 2001). For example negative relationships such as sending a nasty note (e.g. note denoting sexual intent),

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour undermining credibility, sabotaging another's work, unfairly withholding or distributing valued resources or giving dirty looks at a subordinate over a period of time. The consistent nature of these unwanted behaviours exhibited by supervisors and bosses make the workplace hostile for the employee and this may affect their performance.

Hostile work environment is therefore defined as discriminatory conduct or behaviour in the workplace that is unwelcomed and offensive to an employee or group of employees based on a protected class status (Rospenda, Richman, & Shannon, 2009). Also, Einarsen (2000) defines and describes a hostile work environment as one where behaviours such as insulting, teasing, offensive remarks, or silence and hostility when entering a conversation takes place. In such work environment, employers describe and see some workers as socially excluded from their own group hence devalue their work and efforts. Some individual employees often times are subjected to physical abuse, or threats of such abuse by their supervisors and bosses (Einarsen, 2000). However, it should be noted that situations where an employee is comfortable with such experiences at the workplace, cannot be termed as a hostile atmosphere.

Hostile workplace environment is explained to have two main forms namely organisational and social hostile work environment. From the organisational perspective, hostile work environment result from the tight division of labour, task fragmentation and the existence of vertical supervisory hierarchies. This is typical of formal and bureaucratic organisations. From the social perspective, hostile work environment manifests itself through interpersonal trust and the unwillingness of experts to mentor novices. In the informal sector, especially the retail and wholesale shops, the owner with no expertise usually ends up being the 'jack of all trade'. He or she takes all decisions and also serves as the human resource manager, relationship manager, accountant and administrative manager etc. This gives excessive power to the employer to treat employees in any manner he or she deems fit. In

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour addition, these employers in most cases are poor and handicapped in terms of human relations, job design and total management competency of which the resultant effect is to create a workplace that is unhealthy.

Theoretically, there are at least three categories of causes of hostile work environment, that is, characteristics and design of the work environment, the perpetrator, and the victim (Einarsen, 2000). First, the organization can be seen as directly responsible for the presence of a perpetrator based on its human resource systems on selection, training, and disciplinary measures. Second, an organizational climate or culture permitting or encouraging harassment can be judged responsible both directly and indirectly (Aquino & Lamertz, 2004). In addition to organizational climate's direct effects on harassment, it can foster other forms of stressful climates. Victims can easily blame the organization for its climate and for the existence of certain role stressors.

Research over the years have constantly revealed a link between hostile work environment and counterproductive work behaviour (An & Wang, 2016). Michel, Newness and Duniewicz (2015) reported that abusive supervision affects workers' job performance such that it increases the rate at which employees engage in deviant behaviours at work. In addition, Muhonen (2016) examining university teachers and researchers, reported that gender harassment results in ill-health and job dissatisfaction for both men and women. Harris, Harvey, Harris, and Cast (2013) also reported that abusive supervision can motivate employees to engage in counterproductive work behaviour that may be harmful to co-workers.

Aside hostile work environment serving as a likely predictor of counterproductive work behaviour, there is an element of conflict which could also explain some of the variance in counterproductive work behaviour (Nyarko et al., 2014). Conflict is bound to occur where two or more people are gathered and are relationally interdependent. Interpersonal conflict is

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour defined as conflicting situations occurring between people who are inter-reliant leading to the experience of negative emotions, disagreements and interference in the attainment of their goal (Hartwick & Barki, 2002).

There are instances where opinion differences may occur concerning how employees are supposed to perform their tasks at the workplace. Such disagreements in some situations may be accompanied by interference or negative emotion hence creating interpersonal conflict. For example, if a worker dislikes the personality and ideas of another worker, it may translate into conflict especially if such appraisals impede activities and create negative emotions in the other worker. This negative emotion may, in turn, lead the employee to retaliate through verbal abuse, destroy the property of a colleague and even hit a co-worker with a deadly weapon such as a knife, stone etc. These acts may cause the victim to be emotionally unstable and unproductive at work.

However, other studies have reported that the relationship between hostile work environment, interpersonal conflict and counterproductive work behaviour is moderated by personal variables such as sex, marital status and age (e.g. Aquino & Reed, 2002; Ferguson, Carlson, Hunter & Whitten, 2012; Martinko et al., 2002).

In sum, counterproductive work behaviour by employees is said to increase when employees are in conflict with co-workers and at the same time exposed to hostile work environment. The more intimidating the work atmosphere is, the more likely that employees are motivated to put up negative behaviours that run counter to the set standard of the organisation. However, the rate at which an employee will respond to these experiences in a counterproductive manner is contingent on whether the individual employee is a male or female, young or old.

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

## 1.2. Statement of the Problem

The informal sector economy to a greater extent contributes a significant variance in the development agenda of every economy. The informal economy per its nature operates in production units and services that are partially or fully outside government regulation but contribute immensely to nation building (Anuwa-Amarh, 2015). A recent report by the Ghana Statistical Services, Ghana Living Standard Survey, estimated that the informal economy is the largest employer in Ghana, accounting for 88% of the economically active population, hence key to transformational growth and poverty reduction in Ghana (Ghana Statistical Service, 2014).

Despite the promising advantages, the informal economy is not without a disadvantage. Economically, a large informal economy has negative implications on the competitiveness, coverage of formal social programmes and fiscal policies due to undeclared economic activities (Anuwa-Amarh, 2015). Experts argued that these concerns outweigh any advantages that the informal economy offers by means of job creation and as a safety net for the poor. Based on the disadvantages, policy makers have over the years assumed that, with the right mix of economic policies and resources, the informal economy would be transformed into a dynamic formal modern organisation for easy monitoring, evaluation and absorption of more labour force. Contrary to expectations and implementations of economic and structural policies, the informal economy continues to persist whilst its negative consequences are also on the rise.

These outcomes could be explained using Armenakis, Berneth, Pitts and Walker's (2007) and Schein's (1987) observation. In their view, several policies and strategies fail because individuals, policy makers and government at large, in most cases fail to consider key psychological factors that can influence the desired outcome. In support to their observation, researchers in the area of policy studies have reported that workers in the

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It is worth knowing that these workers mostly have lower levels of education with 88% of the workforce having basic level of education, 72.25% of them within the age bracket of 15 and 35 years of which about 75.6% of them earn below the minimum wage of GH¢ 6.01 or US\$1.83 a day, no job security, no written short term or long term employment contract and as a result, in the event of a breach of their fundamental rights, workers are unable to exercise or defend them in court (Anuwa-Amarh, 2015). As rational human beings, these workers are more likely to respond to these experiences in a negative way hence undermining the implementation and effectiveness of economic policies.

In line with the above revelations, researchers using formal sector and corporate workers have reported a positive and significant relationship between abusive supervision, injustice, interpersonal conflict and counterproductive work behaviours towards the organisation and co-workers (e.g. Chernyak-Hai & Tziner, 2014; Mingzheng, Xiaoling, Xubo, & Youshan, 2014; Nyarko, Ansah-Nyarko & Sempa, 2014).

These studies and their findings have contributed immensely in creating a better, serene, competitive working environment and better employer-employee relations for the formal sector workers. Since the informal economy is the largest employer, it is expedient to know how employees also respond to hostile work environment and interpersonal conflict at work.

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To address this problem, the current study focused on wholesale and retail industry since it is the largest industry that employs 30.9 % of the workforce in the urban setting (Accra and Kumasi) (Ghana Statistical Service, 2014).

### **1.3. Aims and Objectives of the Study**

The study was conducted to address the following:

- To examine hostile work environment and interpersonal conflict experiences by wholesale and retail workers in Accra and Kumasi to determine which best predicts engagement in counterproductive work behaviour.
- To assess whether gender harassment, a sub construct of hostile work environment, will explain and account for more variance in counterproductive work behaviour compared to abusive supervision, ethnic discrimination and religious harassment.
- To investigate whether age and sex of workers could either increase or decrease the relationship that exist between interpersonal conflict and counterproductive work behaviour

### **1.4. Relevance of the Study**

Counterproductive behaviour, when exhibited by workers, leads to low productivity, the collapse of businesses, chaos and many more. The current study will help corporate bodies, government, and other business organisations to know some of the root causes of deviant behaviours at work and, therefore, develop pragmatic steps to reduce its occurrence to some degree if not completely. Again the study will draw attention of stakeholders of corporate bodies (employers and employees) to pay keen interest in organisational behaviours so as to help them understand business dynamism especially when it comes to handling of

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour human resources, what they are doing right, what they have failed to do and what needs to be improved so that the increase productivity and standard of living both parties always yearn for will be realized.

Aside its corporate and practical importance, it will contribute to academia by expanding the knowledge base. This would further stimulate research in this area.



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0. Introduction

The strength and growth of every business enterprise depends on employees work behaviour. Employees' positive or negative behaviour at work is dependent on how well employers are prepared to provide a workspace devoid of hostile or intimidating atmosphere. As a result, constructs such as hostile work environment, interpersonal conflict, and counterproductive work behaviours have become important to study. Over the years, empirical evidence has established the consequences of hostile work environment and interpersonal conflicts at work, especially in the formal sectors and this needs to be strengthened by examining the informal sector. This chapter captures theoretical framework, review of related studies, rationale of the study, statement of hypotheses and hypothesized model.

#### 2.1. Theoretical Framework

This section provides a set of related statements that explain a variety of occurrences and therefore serve as a supporting structure around which systematic and orderly display of data can be built. There have been a number of statements that seek to explain why workers engage in counterproductive work behaviours. The present study is grounded in the Reactant Theory and Stressor-Emotion Model of Counterproductive Work Behaviour as the framework for the relationship between hostile work environment, interpersonal conflict and counterproductive work behaviour: a moderating effect of age and sex of workers.

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

### 2.1.0. Reactant Theory

Researchers in the past years have used reactance theory as the basis for investigating employee reactions to abusive supervision (Zellars, Tepper & Duffy, 2002). The basic premise of the theory is that individuals consistently strive to maintain personal control in every situation (Brehm, 1981). According to this theory, individuals have the behavioural freedom that they believe they can engage in. The freedom helps define an individual's self-identity (Worchel, 2004) and helps establish his or her sense of control over the environment (Brehm, 1981).

Situations that threaten or lead to losing of behavioural freedom create motivational state (known as reactance) which is aimed at restoring the freedom lost. The significance of the threatened freedom to the person and the degree of threat determines the degree of reactance displayed. In addition, the theory emphasizes that the attractiveness of a negative behaviour and the motivation to display that behaviour increases when there is a threat or removal of freedom. Based on this theory, it can be argued that employees experiencing hostile work environment (gender, ethnic, religion harassment, abusive supervision) and interpersonal conflict may feel that they have little or no control over the environment and have lost their freedom. To restore this personal control, breathing space and freedom, employees are more likely to resort to counterproductive work behaviours.

### 2.1.1. Stressor-Emotion model of Counterproductive Work Behaviour

Counterproductive work behaviour consists of volitional acts that harm or are intended to harm organisations or people in organisations (e.g., co-workers, customers, and supervisors). It also includes acts of unsafe behaviour, sabotage, and theft. These behaviours per the stressor-emotion model do arise from a number of precipitating conditions within an

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour organisation (Spector, 1998; Spector & Fox, 2005). That is, the theory understands counterproductive behaviour at work as resulting from the link between series of organisational variables at the workplace. Hence the basic premise of the theory is that employee counter-productivity is just a response to a deficient and problem work environment. That is, if an employee is in a conflicting and stressful situation with either co-worker (s), family and friends but his or her organisation treats him or her with care, love and respect, it creates some form of positive feeling in the employee despite the stressors and in turn he or she responds by putting up his/her best performance. Likewise, when there is interpersonal conflict among workers and the organisation in addition creates a work environment that is hostile in nature, it leads to stronger negative emotions which results in the quick display of counterproductive work behaviours. That is, interpersonal conflict could explain why workers may or may not engage in counterproductive work behaviour but this explanation is potent and visible when the work environment is hostile. In addition, hostile work environment resulting from series of organisational factors i.e. gender harassment, ethnic discrimination, abusive supervision and religious harassment may create more stress hence emit a negative response than interpersonal conflict. Therefore, the theory suggests that a hostile work environment will account for more variance in predicting counterproductive work behaviour compared to interpersonal conflict.

## **2.2. Review of related studies**

Apart from the theories explained above, this section discusses various studies and findings that best helped the researcher in explaining the likely effects of the variables considered for this study and help formulate hypotheses for the study.

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

### **2.2.3. Hostile Work Environment and Counterproductive Work Behaviour**

Examining studies in nursing, Lv, Ning and Hong (2016) investigated the levels of abusive supervision, self-efficacy and work engagement among Chinese clinical registered nurses. Using survey research design, the researchers conveniently sampled and tested 923 nurses using questionnaire comprising of scales on abusive supervision, work engagement and self-efficacy. They used structural equation modelling analysis for the data and observed that abusive supervision negatively predicted work engagement and self-efficacy. In addition, self-efficacy played an important mediating factor. The result means that as supervisors abuse workers during supervision, it reduces the rate at which employees engage in work and other organisational activities. In addition, self-efficacy of employees mitigate the negative effect that abusive supervision had on work engagement. By implication, supervisors should not only create an enabling environment but also put down structures that ensure that self confidence in employees is built for better performance and increased productivity.

Chu (2014) earlier did a study by exploring abusive supervision and whether it can effectively predict employees' counterproductive work behaviour and organisational citizenship behaviour and the role of toxic emotion at work as a potential mediator of these relationships in nursing settings. Using two-stage survey, the researcher tested 212 nurses in Taiwan hospital. Hierarchical multiple regression analysis was conducted and the result indicated that supervision was positively associated with toxic-emotions. Again, abusive supervision accounted for 12% of the variance in counterproductive work behaviour and 3% of the variance in organisational citizenship behaviour. Toxic emotions predicted nurses' counterproductive work behaviour and organisational citizenship behaviour. Toxic emotions partially mediated the negative effects of abusive supervision on both work.

As Lv et al. (2016) reported negative relationship between abusive supervision and work engagement, Chu also reported that abusive supervision positively correlated with

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour counterproductive work behaviour and negatively with organisational citizenship behaviour. This means that as supervisors keep abusing workers during supervision, workers always respond by being counterproductive of which one is reduced work engagement and citizenship behaviours.

Within human resource, management, industrial and organisational studies, Omotayo, Olubusayo, Olalekan and Adenike (2015) examined the reasons why employees engage in deviant workplace behaviours. Reviewing current literature on existing body of empirically-based studies on the construct, result suggests that unfair treatment, job dissatisfaction, intention to quit, job stress, poor remuneration, social pressure to conform, abusive supervision and workplace conflicts were the major causes or reasons why employees engage in workplace deviant behaviours. The findings mean that, the way an employer treats his or her employee is very key. That is, when employer treats a worker unfairly through poor remuneration, abusive supervision and job overload that creates stress within the employee will lead to deviant workplace behaviours. The study however failed to report the criteria as to how literature was retrieved and analyzed. In addition, the researchers failed to indicate the number of studies reviewed. To address this, the researcher examined hostile work environment (gender harassment, abusive supervision, religion harassment and ethnic discrimination) and interpersonal conflict as predictors of counterproductive work behaviour.

Also, Sulea, Fine, Fischmann, Sava and Dumitru (2013) examined the moderating effect of personality traits on the relationship between a specific situational stressor, abusive supervision and organisation-targeted counterproductive work behaviours. To achieve this aim, the researchers using survey research design conveniently sampled and tested 236 employees from three Romanian organisations (Regional Public Water Services and Sanitations Company, Food Manufacturing Company and City Hall). Using moderated hierarchical regression analysis, they reported that abusive supervision correlated positively

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour with counterproductive work behaviour-organisation and personality variables were negatively correlated with counterproductive work behaviour-organisation. In addition, the interaction terms for conscientiousness, agreeableness, and emotional stability were significant such that when each was low the relationship between abuse and counterproductive work behaviour-organisation was stronger. They however emphasized the need for managers to treat their employees fairly and respectfully as their results indicate that employees are more likely to engage in counterproductive work behaviour-organisation when abusive supervision is perceived to be present, and may do so with exponentially greater frequency or severity as abusiveness increases, as evidenced by the curvilinear component found. According to the researchers, the extent of time working under abusive supervision which they did not capture in their study may have been able to explain part of the curvilinearity, whereby abuse bore overtime may lead to more severe reactions. Notwithstanding, they argued that counterproductive work behaviour reactions to abusive supervision may also depend on the dispositional profile of the persons in question. The researchers therefore urge management and employers to be more cautious in selecting individuals who score low on personality traits for specific jobs or workgroups whose management cultures may be perceived to be abusive in nature.

Similarly, Wei and Si (2013) study focused on the relation between abusive supervision and subordinates' counterproductive work behaviours toward the organisation. Using survey design and a convenience sampling technique, they sampled and tested hundred and ninety-eight (198) dyads employees and their immediate supervisors in a large multinational company with more than 10,000 employees based in Shanghai, China on the variables under investigation. As part of their study procedure, they collected data from these participants using separate questionnaires such that supervisors assessed their subordinates' counterproductive work behaviour whereas subordinates' also assessed their direct

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour supervisors' abusive supervision behaviours as well as their own locus of control and perceived mobility. Using moderated hierarchical regression analysis, the researchers reported a significant correlations between abusive supervision and counterproductive work behaviour (sabotage, withdrawal, production deviance and theft). In addition, locus of control moderates the relationship between abusive supervision and subordinates' sabotage, production deviance and theft such that the relationships were stronger for those with external locus of control orientation than those who demonstrated internal locus of control orientation.

More so, they established that perceived job mobility moderates the relationship between abusive supervision and subordinates' withdrawal and theft behaviours such that the relationship was stronger for those who perceived less job mobility than those who perceived more job mobility. According to the researchers, employees' subjective feelings on organisation could be partly explained by interactions with supervisors. This was evident through their findings where supervisors' abusive supervisory behaviours led to the enhancement of subordinates' counterproductive work behaviour. However, they observed that the use of locus of control and perceived mobility of subordinates were found to mitigate the effect of abusive supervision on subordinates' counterproductive work behaviour.

In addition, Bowling and Eschleman (2010) did a study and the aim was to examine counterproductive work behaviours as a response to ineffective coping with work stressors. Also, the researchers examined whether the relationship between work stressors and counterproductive work behaviours will be moderated by employee personality. Using Study Response database, the researchers sent an electronic copy of their research questionnaires containing scales on conscientiousness and agreeableness, role stressors, organisational constraints, interpersonal conflict and counterproductive work behaviours to a random subset of 4000 employed individuals. Out of the 4000, only 726 employees provided a complete data and were used in the final analyses. Using hierarchical multiple regression, they reported

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour that organisational constraints and interpersonal conflict associated positively with counterproductive work behaviour. This means that when personal constraints and interpersonal conflict at work increases, the rate at which employees also engage in counterproductive work behaviour increases. Surprisingly they found role stressors to be negatively related with counterproductive work behaviours which was expected to be positive. The researchers explained that, this relationship was an indication of suppressor effect resulting from multicollinearity. In effect, the finding implies that as role constraint increases at the workplace, counterproductive work behaviour decreases.

Furthermore, they found personality i.e. conscientiousness and NA to moderate the relationship between the predictors and the criterion. Agreeableness on the other hand failed to moderate the relationship. Specifically, they reported that work stressors consistently yielded strong positive relationships with counterproductive work behaviour among workers who were low in conscientiousness or high in NA than among workers who were high in conscientiousness or low NA. NA according to the researchers is similar to neuroticism and is the extent to which one generally experiences negative emotions such as anxiety, depression and hostility. This finding is an indicative of employees' personality traits having influence on their propensity to engage in counterproductive work behaviour. Specifically, low conscientiousness or high NA workers may have a low verge for engaging in counterproductive work behaviours because the natural tendencies of these workers is to engage in counter productivity in response to even a minor form of work stressors. High conscientiousness or low NA employees however have a high threshold and thus only engage in counter productivity in response to extreme work stressors. These findings suggest that work stressors result in counterproductive work behaviour such that it is a substantial problem among low conscientiousness or high NA workers and hence should be managed

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour very well. The study, despite its revealing contribution to knowledge and practice, failed to establish the kind of employed workers who answered the questionnaires.

Also, Omar et al. (2011) investigated workplace deviance behaviour and other work related factors: work-related stress and job satisfaction. To establish the relationships between these variables, the researchers sampled and tested 162 civil servants in Malaysia. At the end of the study both work-related stress and job satisfaction predicted organisational deviant behaviour using regression analysis according to the researchers. However, they observed a significant negative relationship between work-related stress and deviance and positive for job satisfaction. This indicates that stress of which hostile work environment is inclusive influenced workers to put up behaviours that are inimical to the growth, health and performance of the organisation.

Furthermore, Alexander (2011) examined the extent to which abusive supervision serves as a predictor of workplace deviance (specifically, organizational, interpersonal, and supervisor-directed) and employee health (depression and anxiety). He hypothesized that narcissism will moderate the relationship between abusive supervision and deviance; and supervisor support will moderate the relationship between abusive supervision and health. He sampled and tested 199 employees in HR/Organizational Psychology-related occupations. The analysis using bivariate correlation realized significant relationships between abusive supervision and interpersonal deviance, supervisor-directed deviance, and depression. In addition, narcissism moderated the relationship between abusive supervision and organizational deviance, while supervisor support moderated the relationship between abusive supervision and anxiety. The findings indicate that as abusive supervision increases, interpersonal deviance, supervisor-directed deviance and level of depression increases.

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

From Legal and political science studies, Vance, Enshier, Frederica, Hendricks and Harris (2004) explored gender-based vicarious sensitivity to disempowering behaviour in organisations, expanding the concept of hostile working environment beyond the context of sexual harassment. The researchers used 303 male and female graduate and undergraduate students from two private and public universities in Southern California and they made them view 10 video segments of Anita Hill's interview by U.S Senators during October 1991 confirmation of Supreme Court Justice Nominee, Clarence Thomas. The report from the findings indicated that regardless of age or ethnicity, women perceived more offensive behaviour expressed toward Anita Hill than did men, lending support to the notions of gender-based sensitivity and of greater vulnerability to disempowering behaviour in organisations.

The researchers argued that these gender-based perceptions of a significantly different nature has a critical implication for women in organizations. With their possible greater awareness of the presence of disempowering behaviour in their work environment, whether they are targets themselves or they observe others as targets, women may personally experience more negative affect and dissatisfaction, and as a result may be more prone to feeling threatened, uncomfortable, and unable to work at a high level of performance hence making women counterproductive in comparison to men. The study even though went beyond sexual harassment as main definition of hostile work environment by examining gender-based hostile work environment, the focus was only for women meanwhile men also find themselves being harassed just because they are males. Also the definition of hostile work environment is still inadequate hence the current study addressed this by including abusive supervision, religion harassment and ethnic discrimination as indicators of hostile work environment.

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Similarly, Jackson and Newman (2004) examined the effect of workers' sociodemographic characteristics, aspects of their daily work environment (the sex of the supervisor and female/male ratio of co-workers), and agency location. Using survey research design, they used 8,081 data from the U.S. Merit Systems Protection Board's. Result from the hierarchical multiple regression analysis showed that sex surfaces as the most imperative effect on harassment probability. Controlling for other factors, the researchers reported that women were more likely to be harassed compared to their male counterpart. In addition, a higher level of education associated with a higher level of unwanted sexual attention for women but not for men. Also, a higher pay grade correlated with more unwanted sexual attention for women but not for men. While older age significantly weakens the probability of harassment for women statistically, the influence of age is much less for men than women. Marital status operate similarly for men and women. Relative to the married, those who are single and divorced are much more likely to be sexually harassed, and this conclusion relates to both men and women. Widowed men appear to be inclined to indicate receipt of unwanted sexual attention relative to both married men and their widowed female counterparts. Turning to type of job, for both women and men, trainees experience the highest levels of sexual harassment, with one important qualifier for women.

More so, female workers were more likely than male workers to receive unwanted sexual attention in the federal workplace. That is, gender had an influence on sexual harassment such that it affects women more than men. The researchers demonstrated that the influences on sexual harassment differ across men and women. Using contact hypothesis and sex-role-spill over theories, their result suggest that women who work primarily with men are more likely to receive unwanted sexual attention, and women who work primarily with other women were less likely to receive unwanted sexual attention. Their results also demonstrated that men who work mainly with women are more likely to receive unwanted sexual attention,

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour and men who work predominantly with other men were less likely to receive unwanted sexual attention. Furthermore, men are significantly more likely to indicate reception of unwanted sexual attention when they have a female supervisor. Their findings further established that organizations must recognize the difficult work environment that faces both female workers in statistically male-dominated work settings and male workers in numerically female-dominated work-settings. Similar findings were reported by Calvasina, Calvasina and Calvasina, (2011) and Mattioli, (2010). These researchers using college students and workers in the tertiary institutions reported that both men and women experience sexual harassment at the workplace but was relative high for females, single and divorced individuals.

In sum, hostile work environment has been found to influence workers in terms of work engagement, citizenship behaviour, satisfaction and counterproductive work behaviour. These studies however paid ardent attention to abusive supervision, gender harassment and sexual harassment as the key major definition and measurement of hostile work environment. Meanwhile there is the likelihood that workers could be discriminated on the grounds of ethnicity and religion. In addition, these studies predominantly used formal sector workers and university students as participants in their studies to the neglect of workers in the informal sector such as wholesale and retail businesses. It is possible that these workers may be experiencing hostile working atmosphere and should be examined.

#### **2.2.4. Counterproductive Work Behaviour and Interpersonal Conflict**

Bayram, Gursakal and Bilgel (2009) conducted a study and the goal was to evaluate the magnitude and types of counterproductive work behaviours (CWBs) among a group of white-collar employees from different firms and their perceptions of the work environment on their affective responses to those perceptions. A total of 766 employees from firms with

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour 200 or more employees in the textile, automotive, machinery, food and other sectors, were selected from the lists of the Bursa Chamber of Trade and Industry for the study. These voluntary participants were asked to anonymously fill a printed questionnaire after which their responses are collected and analysed. Their findings indicated that organisational constraints are the most strongly correlated to exhibited CWBs, followed by interpersonal conflict and quantitative workload. Job satisfaction, on the other hand, had a diminishing effect on CWBs. The researchers suggested that job satisfaction and job stressors are more important than demographic characteristics in exhibiting CWB. These important findings indicate that as organisational constraint, interpersonal conflict and quantitative workload increases, that of counterproductive work behaviour on the parts of workers increases. These therefore suggest that workers usually display counterproductive work behaviour to offset or restore into normality a dysfunctional work environment.

In line with the above report, Spector, Bauer and Fox (2010) investigated measurement features of counterproductive work behaviour and organizational citizenship behaviour and their relationships with other variables (interpersonal conflict, organisational constraint, job satisfaction and workload). They recruited and tested 259 employees and supervisors from a public university in the Southeastern United States on the study variables. Their result indicated that interpersonal conflict at work is the most imperative predictor of counterproductive work behaviours compared to job satisfaction, organisational constraint, and workload which had a deleterious consequences on employees' performance. This means as interpersonal conflict increases at work, the rate of engagement in counterproductive work behaviours also increases. They suggested therefore that for an enterprise to avoid such menace, equity and good interpersonal atmosphere are crucial in helping improve social interaction among employers and employees and eventually, increase productive behaviours and productivity.

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In addition, Illie, Penney, Ispas and Iliescu (2012) studied the moderating effect of trait anger on the relationship between workplace stressors and counterproductive work behaviours. They examined this aim in three convergent studies. In study one, the researchers used self-report approach to sample and test employees from three private Romanian manufacturing organisations. In all, they distributed a total of 300 questionnaires of which 227 were returned for a response rate of 75.7 per cent. In addition, 24 participants were dropped due to excessive missing data, leaving the final sample size at 203 (110 female). In Study 1, they measured workplace stressors and counterproductive work behaviour using co-worker reports but trait anger they used significant other reports. In Study 2, they replicated the findings of Study 1 by measuring personality and workplace stressors using data from multiple sources (significant other, supervisor and co-worker). Counterproductive work behaviour still maintained self-report. In Study 3, they measured workplace stressors at time 1, trait anger at time 2 (6 months later), and objective indicators of counterproductive work behaviour at time 3 (12 months after Time 2).

The results indicated that when employees experience high levels of organisational stressors (i.e. interpersonal conflict and procedural injustice), they are more likely to engage in counterproductive work behaviour than when they experience low levels of organisational stressors. Furthermore, employees who are high on trait anger were more likely to engage in counterproductive work behaviour than employees low on trait anger. In addition, trait anger reported to moderate the relationship between the stressors (low procedural justice, conflict) and counterproductive work behaviour in all the three studies. Precisely, the relationship between stressors and counterproductive work behaviour was found to be more strongly and positive for individuals high on trait anger than individuals low on trait anger.

In sum, the above related studies made a significant contribution to the body of empirical investigation by reporting that interpersonal conflict predicted counterproductive

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour work behaviour. These studies despite their different theoretical underpinnings employed Jex's (1998) Interpersonal Conflict at Work Scale (ICAWS) which measures conflict on only one dimension i.e. disagreement. In addition, the studies concentrated on the formal corporate and health institutions to the neglect of the informal sector workers.

### **2.2.5. Relationship between Gender and CWB**

According to Valentine and Rittenburg (2007), decisions to act and put up a particular behaviour by women were based on interpersonal relations, caring, and doing work well while that of men were based on competitive success and extrinsic rewards (e.g. wage/salary). Therefore, at the presence of low or high interpersonal conflict, females with their caring nature are more likely to reduce the level at which they engage in counter-productivity compared to men. In support of Valentine and colleague report, Kumi (2013) observed that majority of the female respondents in his study strongly agree that harming a co-worker is bad compared to males. Also, older and married individuals were regarded as highly matured in terms of behaviour and relatively has lots of responsibilities than single and younger workers hence may be more careful in the way they respond to interpersonal conflict at work. The report indicates that married persons view taking excessive breaks, stealing and intentionally working slowly as bad compared to single persons (Kumi, 2013). Furthermore, an employee who works in a conflict work environment will only display counterproductive work behaviour if he or she perceives her situation as interpersonally unjust.

Organisational studies have reported a relationship between sex and counterproductive work behaviour of which male workers have been found to be more counterproductive in the presence of interpersonal and organisational stressors. Berry, Ones and Sackey (2007) reported a significant mean correlation of sex (they used the term gender) with counterproductive work behaviour directed towards people and directed towards

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Conversely, some other organisational studies have reported no significant relationship between sex and counterproductive work behaviour. For example, Bayram, Gursakal and Bilgel (2009) found no significant relationship between sex and counterproductive work behaviour. Similarly, Omar et al. (2011) established no gender differences in the display of workplace deviant behaviour. In support with the above findings, Nyarko et al. (2014) in Ghana also reported that male workers in the corporate world did not differ significantly from their female counterparts in the display of counterproductive work behaviour. Examining the differing outcome on the direct relationship between sex and counterproductive work behaviour, there appears to be some level of inconsistencies and need further exploration. These findings from the above studies indicate that in terms of sex differences on the display of counterproductive work behaviour, there are some inconsistencies in literature, hence further investigation is needed.

Within organisational empirical studies, sex has also been investigated in the workplace as a moderator of the relationships between stressors, personality, adiposity,

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour incivility and counterproductive work behaviour (e.g., 2014Sliter, Sliter, Withrow & Jex 2012; Spector & Zhou). Expanding more on Sliter et al.'s (2012) study, the researchers reported a significant moderating effect of sex on the relationship between adiposity and workplace incivility. They reported that overweight and obese females experienced significantly greater levels of incivility than males, whereas underweight males also experienced significantly more incivility than did their female counterparts. Ferguson, Carlson, Hunter and Whitten (2012) using moderated mediation analysis reported that gender moderated the relationship between work-family conflict and organisational deviance behaviour such that men engaged more in deviant behaviours in response to family-to-work conflict than females.

Sex has also been studied outside the workplace as a moderator on the relationships between aggression and other variables (e.g., Bowker, Markovic, Cogswell & Raja 2012; Fives Kong, Fuller & DisGiuseppe 2011). With adolescents, for example, Grych and Kinsfogel (2010) found a stronger correlations between aggressive attitudes and aggression in males than females. With adults, Wickens et al. (2012) showed gender moderated relationships of aggressive driving with several predictors.

In sum, sex had been reported to exert some direct influence on work related behaviours (e.g. interpersonal conflict, counterproductive work behaviour, aggression). Also, sex had been reported to moderate the relationships between organisational variables such as organisational deviance, aggression, personality, and counterproductive work behaviour. However, these findings are contradictory in nature especially the moderated effects of sex on these organisational variables. More so, the moderated effect of sex on the relationship between interpersonal conflict and counterproductive work behaviour had not been well studied hence the current study filled this gap by exploring how the nature of the moderation

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour effect of sex on these two variables (interpersonal conflict, counterproductive work behaviour) would be using workers in the retail and wholesale shops in Accra and Kumasi.

### **2.2.6. Relationship between Age and Counterproductive Work Behaviour**

Studies in industrial and organisational psychology have reported a relationship between age and counterproductive work behaviour among workers at the workplace. Nyarko et al. (2014) reported that older workers had a higher significant mean (40.22) in terms of counterproductive work behaviour than younger workers (37.75). Wiltshire, Bourdage and Lee (2014) reported a significant mean correlation between age of workers and counterproductive work behaviour (-.26).

Age of workers had been reported to have a significant influence on psychological distress, emotional exhaustion, and depression (Marchand et al., 2015). Age of a worker has also been investigated in the workplace as a moderator of the relationships between stressors. In addition, age has been found to moderate the relationship between interpersonal conflict and quantitative workload and counterproductive work behaviour. Bayram et al. (2009) reported that age of workers had a moderating effect on the relationship between organisational constraints and counterproductive work behaviour.

Despite the revealing moderating effects of age on the relationship between the organisational variables such as interpersonal conflict, psychological distress and work stressors in general, these studies failed to explain the nature of the moderating effect.

### **2.3. Rationale for the Present Study**

Most studies reviewed on the variables under investigation examined corporate workers (e.g. Bayram et al., 2009; Mingzheng, et al., 2014; Nyarko, et al., 2014; Spector &

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour Zhou 2014; Wiltshire, 2014). Other studies reviewed used measures that compare interpersonal conflict on only disagreement dimension and task-related conflict (e.g. Bowling & Eschleman, 2010; Illie et al., 2012, Nyarko et al., 2014).

With regard to hostile work environment, most researchers either examined just abusive supervision, gender harassment or ethnic discrimination. However, a situation that makes the workplace hostile is not just one factor but a combination of a number of factors.

Furthermore, there appears to be some level of inconsistencies on the effect of age and sex in predicting counterproductive work behaviour. For instance, Nyarko et al. (2014) established no gender differences in terms of counterproductive work behaviour. Also younger employees were found to be less counterproductive compared to older workers. Meanwhile other scholars, for example Öcel and Aydin (2010) reported that male employees engaged more in counterproductive work behaviour directly towards the organisation whereas females were more counterproductive indirectly towards the organisation. Kumi (2013) for instance found younger workers to be more counterproductive. These differences and inconsistencies in outcome suggest more empirical investigation into these demographic characteristics and counterproductive work behaviour. In addition, the current study explored the nature of the moderating effect of age and sex on the relationship between interpersonal conflict and counterproductive work behaviour using samples in the informal sector in Ghana.

This study filled these gaps by examining all the three dimensions (disagreement, interference and negative emotion) for a holistic understanding of how interpersonal conflict and counterproductive work behaviour relate. Also, the present study broadens the scope of hostile work environment to include harassment based on gender, religion and ethnic and abusive supervision.

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#### **2.4. Statement of hypotheses**

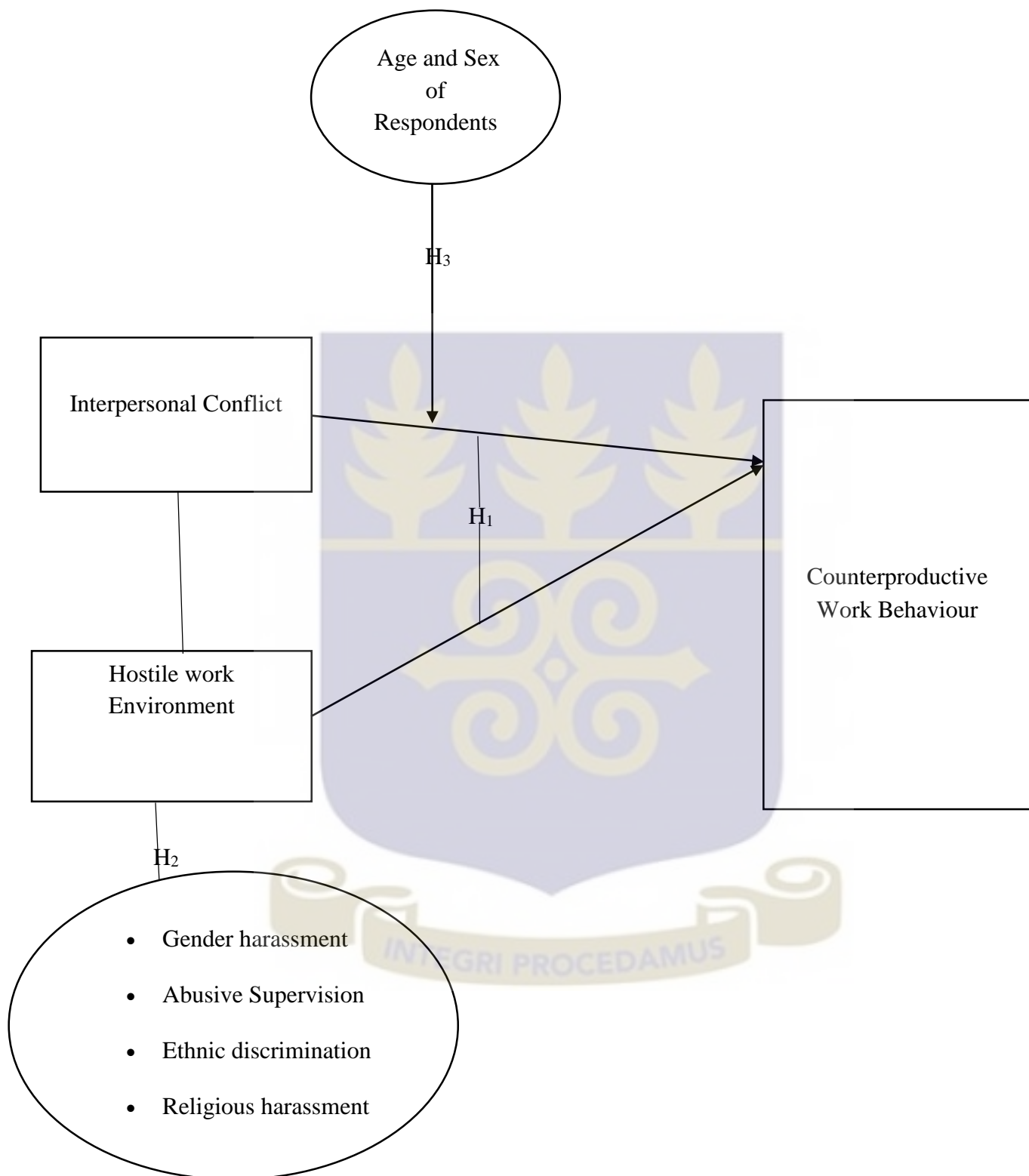
*H<sub>1</sub>*: Hostile work environment will significantly account for more variance in predicting counterproductive work behaviour compared to interpersonal conflict

*H<sub>2</sub>*: Gender harassment would account for more variance in counterproductive work behaviour than abusive supervision, ethnic discrimination and religious harassment.

*H<sub>3</sub>*: Age and sex of workers will significantly moderate the relationship between interpersonal conflict and counterproductive work behaviour.



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**2.5. Hypothesized Model**

*Figure 1: A schematic representation of the hypothesized relationship between the Predictor Variables and the Criterion variable*

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Figure 1 depicts the hypothesized relationship between the independent variables (IVs), moderator variables and dependent variable (DV). Hostile work environment and interpersonal conflict are the main independent variables while age and sex of respondents are the moderators whose influences are being investigated on counterproductive work behaviour.



## CHAPTER THREE

### METHODOLOGY

#### 3.0. Introduction

This chapter captures a detailed explanation on the methodological approaches that were used for the study and this include research setting, participants, sampling technique, design, measures, the procedure for data collection and data analysis.

#### 3.1. Research Setting

Participants for the study were recruited from Kumasi (Ashanti region) and Accra (Greater Accra region). These settings were the focus because per the Ghana Statistical Services' Living Standard Survey (2014) employment status of employed persons in the informal sector, the total of the two regions was more than half of the entire population in Ghana.

#### 3.2. Participants

The informal sector employs a greater portion of the Ghanaian workforce with its percentage estimation being 88% (Ghana Statistical Service, 2014). In addition, researchers had reported that these workers usually find themselves working in a hostile work environment and are mostly ill-treated (e.g. Haug, 2014; Osei-Boateng & Ampratwum, 2011). Interestingly, little is known on how these employees' respond to such harsh experiences hence there is a need to study such population to unearth how they react to hostile work environment and interpersonal conflict at work.

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To test the relationships among the variables under investigation, three hundred and eighty-four (384) workers within the wholesale and retail sector consisting of males and females of different age groups, ethnicity, educational levels, and different religious background were conveniently sampled. The shops used in the present study include grocery stores, drinking spots, mini shops, pharmacies and food joints. This sample size was based on Krejcie and Morgan (1970) table for determining the needed sample size. The primary sampling unit was based on the most recent report at the time of the study by Ghana Statistical Service (2014) Living Standard Survey on the employment status of employed persons. This survey gave detailed information about the geographical locations and the population sizes for the various wholesale and retail works in the ten regions of Ghana. The total population for self-employed with employees categories in all the ten regions reported was 471,017. From the regional breakdown, the two largest, Greater Accra (129,908) and Ashanti (124,667) regions with a total of 254,575 were selected as the population size. From Krejcie and Morgan's table, a population of 1,000,000 at .05 confidence level with power of .80, requires a sample size of 384 hence the participants selected. Workers who were 18 years old and above, had worked for the enterprise for three months and more, had completed basic education or higher served as participants.

Questionnaires were distributed to the 384 workers in 13 urban towns across the two regions of Ghana (Greater Accra and Ashanti). Out of this, only 318 correctly filled questionnaires representing a response rate of 82.8% were returned. The ages of respondent ranged from 18 years to 72 years with an average age of 25.3 years. In addition slightly more respondents reported working under male bosses (161) than female bosses (156). Of the 318 respondents, 246 reported that their bosses are married, 50 reported them to be single, while 15 of them were divorced and seven of them were cohabiting. Also, Two hundred and forty-nine of the shop owners were reported by respondents to be Christians, 47 Muslims, 18

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour African traditionalists, one Buddhist while three failed to specify the religion of their bosses. Furthermore, of the 318 respondents, 195 reported their bosses to be Akan, 62 Ewe, 31 Ga/Adangbe, 17 Dagomba, 4 Guan and 8 from other ethnic groups not specified. One of the respondents failed to report the ethnicity of the shop owner. Table 1 below indicates the demographic characteristics of the studied participants.

*Table 1: Summary of Demographic Characteristics of Sample*

Variables	Frequency	Percentage (%)
<b>Sex</b>		
• Male	179	56.3
• Female	139	43.7
<b>Age Groups</b>		
• 18-21yrs	108	34
• 22-26yrs	117	36.8
• 27yrs and above	93	29.2
<b>Educational level</b>		
• Primary	70	22
• Secondary	162	51
• Tertiary	76	27
<b>Years of service</b>		
• 3-6 months	103	32.4
• 1-2 years	119	37.4
• 3years and above	96	30.2
<b>Religion</b>		
• Christian	236	74.2
• Muslim	58	18.2
• African Traditional	21	6.6
• Other	3	1
<b>Ethnicity</b>		
• Akan	165	52
• Ewe	79	24.8
• Ga/Adangbe	36	11.3
• Dagomba	23	7.2
• Guan	8	2.5
• Other	7	2.2
<b>Marital Status</b>		
• Married	64	20.1
• Single	236	74.2
• Divorced	5	1.6
• Cohabitation	13	4.1
<b>Relation with Owner</b>		
• My Family relation	64	20.1
• Not my Family relation	254	79.9

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### 3.3. Design

The survey method was used to measure the relationship between the three variables hostile work environment, interpersonal conflict and counterproductive work behaviour. The survey design was deemed appropriate because as highlighted by Bartlett (2005), it is quantifiable and generalizable to an entire population if the population is sampled appropriately and also permits for the collection of more data and information regarding respondents in a relatively shorter period of time.

### 3.4. Measures

Questionnaire was designed using existing scales on the three variables. Six scales were used to measure interpersonal conflict, hostile work environment and counterproductive work behaviour. The questionnaire was made up of two sections. Section one captured the predictor and criterion variables and section two demographic characteristics of respondents and demographic data of owners of the enterprise. Of the part which contains the scales for the predictor and criterion variables, a total of eighty-six (86) items were used to gather the data.

#### 3.4.1. Section One: Predictor and Criterion Variables

This section captured scales that were used to measure the predictor variables (hostile work environment and interpersonal conflict) and criterion variable (counterproductive work behaviour). The section was further divided into three main subsections as detailed below.

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#### **3.4.1.0. Subsection One: Interpersonal conflict**

The first subsection of section one was the interpersonal conflict scale. Non-Organisational subscale of the Interpersonal Conflict in Organisation Scale (ICOS) was used to measure interpersonal conflict at work. It is a 16-item scale developed by Lee (2006) on a 5-point Likert scale ranging from 1 (never) to 5 (to every day). Items on this scale ask about interpersonal relationships in the workplace, and more specifically about disputes or confrontations and how often the respondent was the recipient of offensive behaviour. Scores ranged 16-80 and a higher score indicates higher experience of interpersonal conflict (see Appendix A). The reported Cronbach Alpha for the scale is .91 (Lee, 2006).

#### **3.4.1.1. Subsection Two: Hostile work environment**

In all, 34 items were used to measure hostile work environment which was made up of four different scales and these include ethnic discrimination (Schneider et al., 2000), gender and religious harassment (Stark, Chernyshenko, Lancaster, Drasgow & Fitzgerald, 2002) and abusive supervision (Tepper, Henle, Giacalone & Duffy, 2008). It is measured on a 5-point Likert-typed scale ranging from 1 (I cannot remember him/her ever using this behaviour with me) to 5 (He/she uses this behaviour very often with me). Scores ranged 34-170 and a higher score indicates a higher experience of hostile work environment (see Appendix A). The reported Cronbach alpha's for the four sub scales are .92, .90, .90 and .94.

#### **3.4.1.2. Subsection Three: Counterproductive Work Behaviour**

This part captured counterproductive work behaviour. Six dimensions of counterproductive work behaviour at work proposed by Gruys and Sacketts (2003) were used. These include theft and related behaviours (nine items), destruction of property (four

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour items), misuse of time and resources (six items), unsafe behaviour (four items), inappropriate verbal actions (eight items) and poor attendance (five items). It is a 36 item scale on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Scores ranged from 36-180 and a higher score indicates higher display of counterproductive work behaviour at work (see Appendix A). Reported Cronbach alpha's are .77, .66, .90, .71, .82, and .77 respectively.

### **3.4.2. Section Two**

#### **Demographic Information of Respondents**

This section captured demographic data of respondents which consists of the age, sex, educational level, month/years worked (3-6 months, 1-2years, 3years and above), ethnicity (Akan, Ewe, Ga/Adangbe, Dagomba, Guan and others), marital status (married, single, divorced, cohabitation), relation with the owner (my family member and not my family member), and religion (Christian, Muslim, African Traditional religion, Others).

#### **Demographic Data of Owners of the Enterprise**

In this section, participants were instructed to enter certain biographical information about their bosses and this include: sex (male/ female), ethnicity (Akan, Ewe, Ga/Adangbe, Dagomba, Guan and others), religion (Christian, Muslim, African Traditional religion, others) and marital status (married, single, divorced, cohabitation).

### **3.5. Procedure**

Using existing scales for the current study, it was expedient for the scales to be piloted. This process helped to check for clarity and transparency of items that were on the scales. It is possible that some of the terminologies on the scales may not be familiar in our

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour Ghanaian language as such making it difficult for participants to understand and interpret it as wished-for. Due to this, the scales were first piloted by administering the questionnaires on 30 workers from the retail and wholesale shops in Accra (15) and Kumasi (15). Out of this number, 17 of them were male and 13 female. Their level of education ranged from basic (1), secondary (11) to tertiary (18), and stemmed from Akan (16), Ewe (2), Ga/Adangbe (7), Dagomba (2), and other ethnic groups not specified. The participants were predominantly Christians (26) and a few Muslims (4) with work experience ranging from 3 months to 2 years and above. Out of the 30, 10 of them were related to the owners of the shops whilst 20 were not related to the owners. In addition, most of the participants were single (28) and two married individuals (2). The minimum age of the sample was 18 years and the maximum 35 years with a mean age of 24.6 years. In all, a four paged questionnaire was completed by participants. Some concerns and suggestions were raised regarding the wording of some of the questions (e.g. organisation, policies etc.) and some of the items were deemed not applicable within their setting on the return of the questionnaires by participants. Such comments were considered and included for the main study data collection. The internal reliability coefficients (Cronbach alpha values) for interpersonal conflict was .80, hostile work environment .95 and counterproductive work behaviour .94. These figures were all greater than .70 and therefore were appropriate for psychometric analysis and main data collection (Wells & Wollack, 2003).

### ***3.5.1. Main Data Collection***

Ethics approval for the conduct of the study was obtained from the Ethics Committee for Humanities at the University of Ghana, Legon. A copy of the ethics approval letter (see Appendix B), the consent form (see Appendix A) and sample of questionnaire were then given to owners of the various wholesale and retail shops in Accra and Kumasi to seek

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour permission to collect data from their workers. Permission was granted to the researcher and the research assistants on the same day the copies were sent. Workers were briefed on the essence of the study and their consent was sought to participate in the study. In addition, the researcher made workers aware that information such as their name, telephone number and place of work that will make them traceable were not supposed to be indicated on the questionnaire if they willingly agree to participate.

The questionnaires were then distributed to workers who gave oral and written consent. The participants were then given 10 minutes each to complete the questionnaire. Some of the participants took between 20-30 minutes to complete due to their busy schedules. Where there was anything the participants could not understand, the researcher or the research assistants were available to explain. After completing the questionnaires, the principal investigator and research assistants in their various centres collected the questionnaires from the participants and they were thanked for their time and participation. Collection of questionnaires from participants took a gradual process since the participants were given absolute power concerning when to fill them. It took four weeks (20 working days) for the principal investigator and research assistants to collect data from thirteen (13) urban towns in Kumasi (Tech, Atonsu, Agogo, Monaco, Dompase-Aprabo, and Esereso) and Accra (Madina, Adenta, Amrahia, Legon campus, Okponglo, Kisseiman and East Legon).

After data was collected, it was scored and statistically analysed with the IBM Statistical Product and Service Solutions (SPSS) version 22. Out of the three hundred and eighty-four (384) questionnaires administered, three hundred and thirty (330) of them were returned, three hundred and twenty-one (321) were properly filled, four (4) incomplete and five (5) below the recommended age (i.e. 18 years) and were excluded from further data processing. However, only three hundred and eighteen (318) met the necessary conditions for

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour inclusion in the study and represented 82.8% response rate. In general, it has been reported that a very good response rate should be 70% and 75% (Cohen, 1988). Babie and Mouton (2001) also indicated that a response rate of 50% is good enough for analysis however 70% and above is considered very good for statistical analysis. Therefore, the current response rate of 82.8% was sufficient for proper analysis of data. Statistical analysis was then performed on the three hundred and eighteen (318) usable questionnaires.

### **3.6. Data Analysis**

In all, three hypotheses were stated. Data was analysed by computing for descriptive statistics (mean, standard deviation, skew, and kurtosis), reliability, validity (Exploratory Factor Analysis) and inferential statistics on the predictor and criterion variables. Hierarchical multiple regression was used to analyse all the three hypotheses. This statistical tool was used because the researcher examined the rate at which the independent variables (hostile work environment and interpersonal conflict) and the subthemes of hostile work environment (gender harassment, abusive supervision, ethnic discrimination and religious harassment) predict the engagement in counterproductive work behaviour among wholesale and retail workers by controlling for education, sex, age, ethnicity, marital status, relationship with the owner, tenure and religion.

In addition, the moderating effect of age and sex on the relationship between interpersonal conflict and counterproductive work behaviour was measured. According to Baron and Kenny (1989), when doing moderation analysis and the predictor (interpersonal conflict) and the moderator (age) variables are all continuous in terms of measurement, the best statistical test to employ is hierarchical multiple regression. Also if the predictor (interpersonal conflict) is continuous and the moderator (sex) is dichotomous, hierarchical

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour multiple regression can be used. The dependent variable (counterproductive work behaviour) was also measured on an interval scale and the scores were normal in distribution.



## CHAPTER FOUR

### RESULT

#### 4.0. Introduction

The present study examined hostile work environment and interpersonal conflict as predictors of counterproductive work behaviour. With this aim in mind, data was then collected from workers in the wholesale and retail industry in Accra and Kumasi. All the three hundred and eighteen (318) completed questionnaires were statistically analysed using IBM Statistical Product and Service Solutions (SPSS) version 22. The analysis was then presented in three main sections. The first section is the preliminary analysis, the second section captured the various hypotheses proposed and tested and the third section is summary of results.

#### 4.1 Preliminary Analysis

This section of the analysis deals with assumptions underlining the use of parametric tests. It consists of normality test, reliability, descriptive statistics and construct validity for the variables investigated.

##### 4.1.0. Normality and Descriptive Statistics of Variables

Research that involve the use of parametric statistical analysis requires the establishment of normal distribution of scores. For instance, to use regression analysis, the dependent variable must be normally distributed in terms of scores. The process used to establish whether or not a test is normally distributed in terms of scores by participants is normality testing. This is usually determined through the use of kurtosis and skewness indices of -1 to +1 (normally distributed) and -2 to +2 (acceptable, not substantially deviated from normality). As shown in Table 2 below, skewness and kurtosis for the dependent variable,

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour counterproductive work behaviour were within the normally distributed indices of -1 to +1. Kurtosis for the predictor variables (hostile work environment and interpersonal conflict) were found to be normally distributed (-1 to +1). In terms of skewness, hostile work environment was found to be normally distributed (-1 to +1) and interpersonal conflict was within an acceptable range of -2 to +2 indicating that the scores were not substantially deviated from normality (Field, 2009).

The data was also examined to check the presence of outliers and it was observed in the output that no univariate and multivariate outliers were present. Furthermore, residuals were also examined to check the spread of individual scores and how the variables relate to each other. The outcome indicated no problems of linearity and homoscedacity and were all within the range of -3 to +3 (Field, 2009). In addition, the average Variance Inflation Factor (VIF) of 1.19 is very close to 1 and the largest VIF of 1.41 is less than 10 (Field, 2009) and tolerance statistics were all above .2 with the least being .71. These therefore confirm that collinearity was not a problem and that the predictor and criterion variables were all normal and can be used for parametric analyses (Field, 2009). Descriptive statistics of the predictor and criterion variables, which include means and standard deviations, were computed.

#### **4.1.1. Reliability Analysis of Scales**

Using existing scales, there was the need to know whether the scale is consistent/reliable within the sample tested. To check the reliability of the scales, the researcher computed the Cronbach alpha on the items of hostile work environment, interpersonal conflict and counterproductive work behaviour. The Cronbach alpha coefficient obtained from the statistical analyses was observed and compared.

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

The internal consistency coefficients (Cronbach alpha value) of the whole scale on the questionnaire was ( $\alpha = .95$ ) and the subscales were calculated. The alpha values, skewness and kurtosis of the subscales are presented in Table 2.

*Table 2: Summary of Means, SD, Reliability, Skew and Kurtosis of Predictor and Criterion Variables*

Variable	M	SD	$\alpha$	Skew	Kurtosis
<b>Interpersonal Conflict</b>	28.27	9.31	.86	1.03	0.85
<b>Hostile Environment</b>	55.86	17.30	.92	0.60	-0.50
Ethnic discrimination	9.88	4.18	.78	0.75	-0.71
Gender harassment	11.81	4.58	.80	1.43	2.53
Religion Harassment	7.86	3.47	.82	1.35	1.65
Abusive Supervision	26.30	8.65	.83	0.54	-0.44
<b>Counterproductive behaviour</b>	63.57	20.51	.94	0.72	-0.19

*N = 318, S.E of Skewness = 0.14*

The reliability coefficients of the study variables were assessed by computing the Cronbach's alpha. From the analysis, the alpha values for all the scales were found to be above the threshold of .70 reported as appropriate for psychometric analysis (Wells & Wollack, 2003). The reliability coefficients ranged from .78 to .94 (Table 2 above).

#### 4.1.2. Exploratory Factor Analysis for the Construct Validity of Scales

In testing for the construct validity, exploratory factor analysis was conducted specifically using the Maximum Likelihood. Knowing the components for the various scales, this process was used to determine whether the individual items on each instrument would produce pattern loadings leading to the measurement of the construct (Field, 2009).

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Table 3: Exploratory Factor Analysis of Interpersonal Conflict in Organisation Scale

	Factor			
	1	2	3	4
Do you delay someone's work because your workplace procedure allows you to?	.70			
Do you block others from attaining their objectives because of differences in workplace influence?	.70			
Do others delay your work because the workplace procedure allows them to?	.68			
Do you feel mad due to conflicts over organizational changes?	.67			
Are you in a disagreement with someone at work because of a shop/enterprise rule?	.65			
Are you in a quarrelling situation with someone at work caused by differences in workplace control?	.51			
Do you feel frustrated with others because of issues related to workers employment?	.46			
Do others block you from attaining your objectives because of differences in workplace power?	.41			
Does someone make your life more difficult over work-related issue that does not pertain to a specific work task?		-.84		
Do you feel frustrated with others because of issues related to a shop/enterprise policy?		-.84		
Do you make someone's life more difficult over work-related issue that does not pertain to a specific work duty?			.89	
Do you feel anxious due to the actions of someone with more workplace power?			.54	
Do you disagree with someone about hiring decisions in your workplace?				.85
Do you disagree with someone over work-related issues that do not pertain to a specific work task?				.84
Do you dispute with someone at work because of poor workplace leadership?				.57
Do you feel tense because others in your workplace do not value your work?				
Eigenvalues	5.37	1.95	1.43	1.36
% of variance explained	33.5%	12.1%	8.9%	7.8%

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour  
*Exploratory Factor Analysis of Interpersonal conflict Scale*

There were 16 items on the ICOS and were subjected to exploratory factor analysis (EFA) with oblique rotation (direct oblimin). Before the EFA was conducted, the suitability of the scale for factor analysis was assessed. Observing from the correlation matrix, it was identified that many of the correlation coefficients were .3 and above. The Kaiser–Meyer–Olkin measure confirmed the sampling adequacy for the analysis, KMO = .81 which is considered as ‘great’ (Field, 2009), and all KMO values for individual items were  $> .54$ , which is above the acceptable limit of .5 (Field, 2009). Bartlett’s test of sphericity  $\chi^2 (120) = 2024.34, p < .001$ , indicated that correlations between items were sufficiently large for EFA. An initial analysis was run to obtain eigenvalues for each component in the data. Four components had eigenvalues over Kaiser’s criterion of 1 and in combination explained 62.53% of the variance closer to the original author reports of 65%. All of the items had factor loadings  $> .40$  on their primary factors and three items loaded on multiple factors (see Table 3 above). The interpretation indicated by the four components was consistent with previous research on the ICOS (Lee, 2006).



## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Table 4: Summary of Exploratory Factor Analysis of Hostile Work Environment Scale

	Component			
	1	2	3	4
Treated you “differently” because of your religion?	.76			
Ridicules me	.71			
Repeatedly told religious jokes that were offensive to you?	.70			
Puts me down in front of others	.69			
Invades my privacy	.65			
Displayed, used, or distributed offensive religious materials?	.60			
Excluded you from social interactions because of your ethnicity?	.55			
Reminds me of my past mistakes and failures	.53			
Gives me the silent treatment	.44			
Does not allow me to interact with my co-workers	.42			
Tells me my thoughts or feelings are stupid	.41			
Repeatedly told sexual stories that were offensive to you?		.83		
Made gestures of a sexual nature which embarrassed you?		.74		
Put you down or was arrogant to you because of your religion?		.72		
Made offensive sexist remarks?		.67		
Made offensive ethnic comments?		.63		
Made offensive remarks about your appearance		.54		
Tells me I'm incompetent			.70	
Failed to give you information you need due to your ethnicity?			.65	
Made offensive religious remarks?			.64	
Put you down or was arrogant to you because of your sex?			.54	
Made unwelcome discussion of sexual matters?			.47	
Is rude to me				-.80
Made derogatory comments about your ethnicity?				-.70
Told jokes about your ethnic group?				-.65
Used ethnic insults to describe you?				-.64
Treated you “differently” because of your sex?				-.58
Displayed, used, or distributed sexist or suggestive materials?				-.56
Doesn't give me praise for jobs requiring a lot of effort				-.55
Makes negative comments about me to others				-.55
Expresses anger at me when he/she is mad for another reason				-.53
Breaks promises he/she makes				-.46
Blames me to save himself/herself from embarrassment				-.41
Lies to me				
<i>Eigenvalues</i>	9.62	2.94	2.36	2.04
<i>% of variance explained</i>	28.30	8.64	6.93	5.99

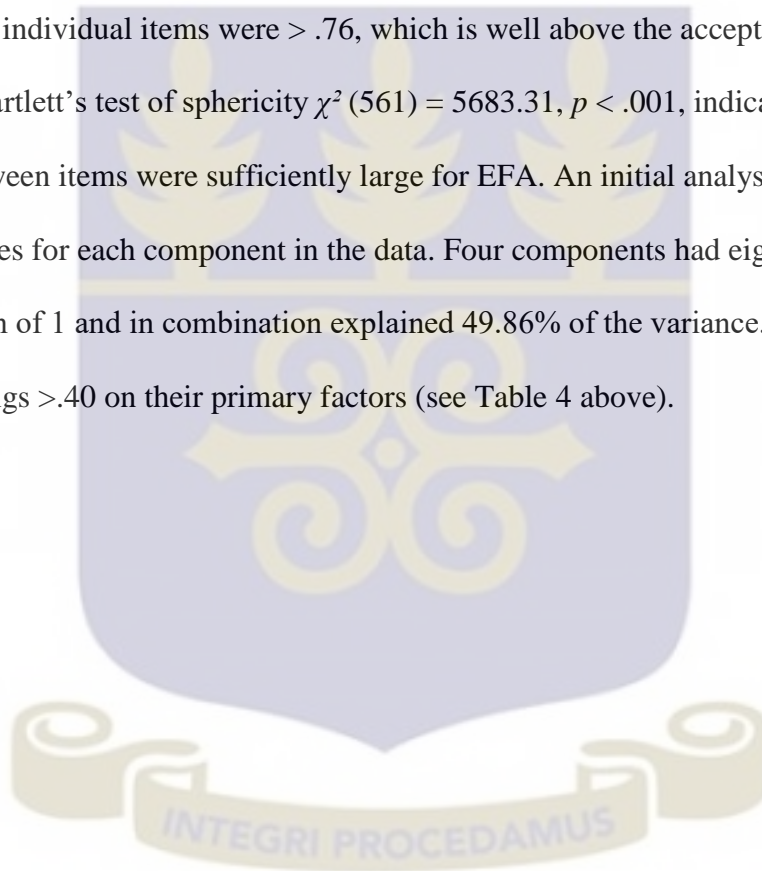
Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

*Factor Analysis of Hostile workplace environment*

There were 34 items on the HWE and they were subjected to exploratory factor analysis (EFA) with oblique rotation (direct oblimin). Before the EFA was conducted, the suitability of the scale for factor analysis was assessed. Observing from the correlation matrix, it was identified that many of the coefficients were .3 and above. In addition, the mean and standard deviations of each item were calculated. The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis,  $KMO = .84$  considered as great (Field, 2009), and all KMO values for individual items were  $> .76$ , which is well above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity  $\chi^2(561) = 5683.31, p < .001$ , indicated that correlations between items were sufficiently large for EFA. An initial analysis was run to obtain eigenvalues for each component in the data. Four components had eigenvalues over Kaiser's criterion of 1 and in combination explained 49.86% of the variance. All of the items had factor loadings  $> .40$  on their primary factors (see Table 4 above).



## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Table 5: Exploratory Factor Analysis of Counterproductive Work Behaviour

	Component					
	1	2	3	4	5	6
5 Theft	.84					
2 Theft	.84					
7 Theft	.75					
8 Theft	.70					
4 Theft	.59					
2 Theft	.55					
3 Theft	.53					
1 Theft		.78				
9 Theft		.75				
27 Inappropriate verbal action		.71				
28 Inappropriate verbal action		.68				
26 Inappropriate verbal action		.60				
25 Inappropriate verbal action		.59				
30 Inappropriate verbal action		.56				
29 Inappropriate verbal action		.56				
24 Inappropriate verbal action		.52				
33 Poor attendance			.88			
32 Poor attendance			.74			
36 Poor attendance			.69			
35 Poor attendance			.62			
34 Poor attendance			.60			
18 Misuse of time/resources			.43			
10 Theft				.62		
21 Unsafe behaviour				.60		
13 Destruction of property				.57		
11 Destruction of property				.57		
12 Destruction of property				.55		
14 Misuse of time/resources				.51		
20 Unsafe behaviour					.78	
22 Unsafe behaviour					.68	
23 Unsafe behaviour					.57	
17 Misuse of time/resources					.42	
15 Misuse of time/resources						
19 Misuse of time/resources						
16 Misuse of time/resources						.58
26 Inappropriate verbal action						-.43
Eigenvalues	12.39	2.67	2.07	1.65	1.59	1.33
% of variance explained	34.4%	7.43%	5.76%	4.59%	4.42%	3.68%

Extraction Method: Principal Component Analysis

Rotation Method: Oblimin with Kaiser Normalization

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

There were 36 items on the CWB and they were subjected to exploratory factor analysis (EFA) with oblique rotation (direct oblimin). Before the EFA was conducted, the suitability of the scale for factor analysis was assessed. Observing from the correlation matrix, it was identified that many of the coefficients were .3 and above. The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .89 considered as great (Field, 2009), and all KMO values for individual items were > .83, which is well above the acceptable limit of .5 (Field, 2009). Bartlett’s test of sphericity  $\chi^2(630) = 6781.20, p < .001$ , indicated that correlations between items were sufficiently large for EFA. An initial analysis was run to obtain eigenvalues for each component in the data. Six components had eigenvalues over Kaiser’s criterion of 1 and in combination explained 60.3% of the variance. All of the items had factor loadings >.40 on their primary factors (see Table 5 above). From the analysis it was observed that the items loaded considerably well on component 1 and explained variance in the construct by 34.4%.

### *Summary of Reliability and Construct Validity of Scales*

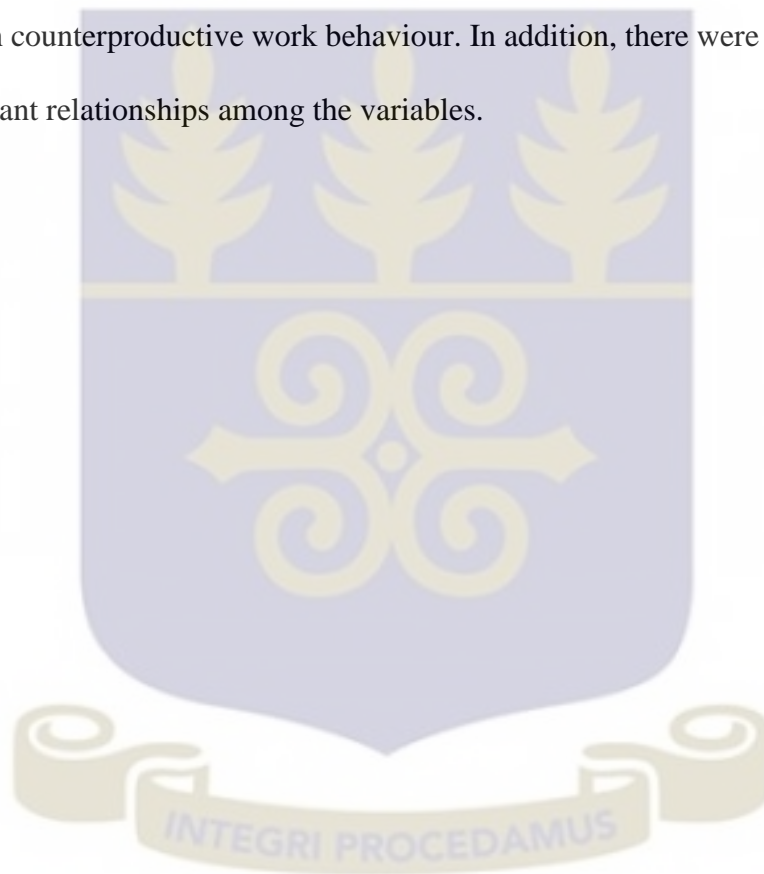
Examining the reliabilities of the scale, it was identified that the scales were consistent in producing similar responses within the setting and all the items on the scales contributed in measuring counterproductive work behavior, hostile work environment and interpersonal conflict. These therefore indicate that the scales were reliable and valid.

#### **4.1.4. Intercorrelations among Predictor and Criterion Variables**

Intercorrelations among control, predictor and criterion variables were computed using Pearson Product-Moment Correlation and the coefficients presented in Table 6. The ensuing Table 6 presents the Pearson Product-Moment Correlation matrix for all the control,

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour predictor and criterion variables. From Table 6, it was observed that three of the control variables (religion, tenure and age) had a small but significant positive relationship with counterproductive work behaviour.

On the side of the two major predictor variables, hostile work environment had medium but significant positive relationship with counterproductive work behaviour ( $r_{(318)} = .53, p < .01$ ) whilst interpersonal conflict had a small but significant relationship ( $r_{(318)} = .16, p < .01$ ). All the subthemes of hostile work environment also had a significant positive relationship with counterproductive work behaviour. In addition, there were also positive and negative significant relationships among the variables.



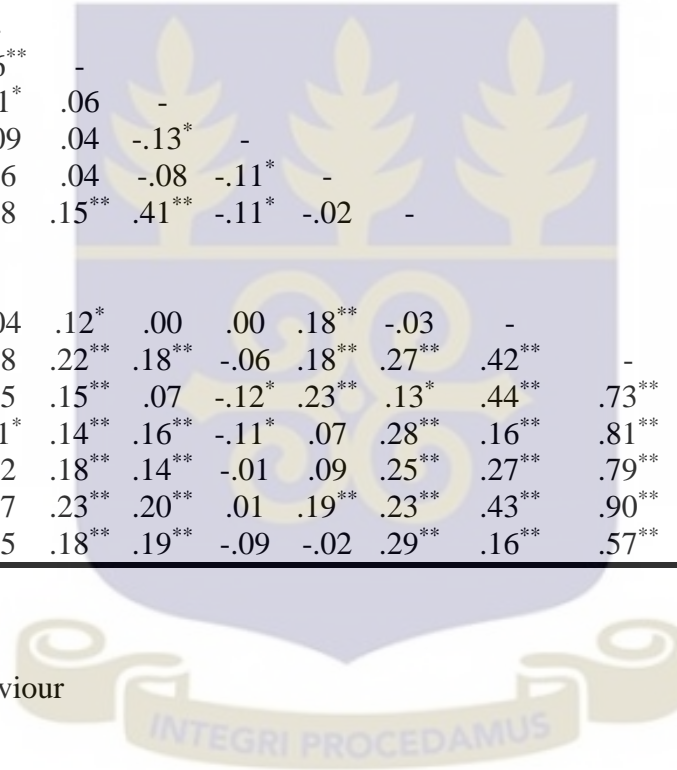
Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Table 6: Summary of Intercorrelations among the Control and Studied Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>Control Variables</b>															
1. Sex	-														
2. Education	-.06	-													
3. Ethnicity	-.09	.00	-												
4. Religion	-.16**	-.02	.26**	-											
5. Tenure	-.14**	.19**	.11*	.06	-										
6. Marital Status	-.04	-.02	-.09	.04	-.13*	-									
7. Relation	.00	-.18**	.06	.04	-.08	-.11*	-								
8. Age	-.19**	.08	.08	.15**	.41**	-.11*	-.02	-							
<b>Study Variables</b>															
9. Interpersonal Conflict	-.19**	-.08	-.04	.12*	.00	.00	.18**	-.03	-						
10. Hostile Environment	-.16**	-.02	.08	.22**	.18**	-.06	.18**	.27**	.42**	-					
11. Ethnic discrimination	-.11*	-.05	.05	.15**	.07	-.12*	.23**	.13*	.44**	.73**	-				
12. Gender harassment	-.07	.04	.11*	.14**	.16**	-.11*	.07	.28**	.16**	.81**	.55**	-			
13. Religious harassment	-.09	.03	.02	.18**	.14**	-.01	.09	.25**	.27**	.79**	.46**	.63**	-		
14. Abusive supervision	-.19**	-.05	.07	.23**	.20**	.01	.19**	.23**	.43**	.90**	.51**	.57**	.63**	-	
15. CWB	-.06	.06	.05	.18**	.19**	-.09	-.02	.29**	.16**	.57**	.41**	.53**	.42**	.49**	-

\*\*p<.01, \*p < .05, N = 318

Note: CWB = Counterproductive Work Behaviour



Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

#### 4.2. Hypotheses testing

***H<sub>1</sub>***: Hostile work environment will significantly account for more variance in predicting counterproductive work behaviour compared to interpersonal conflict

This hypothesis was tested using hierarchical multiple regression analysis. Results of assumptions of linearity and normality were adequate. The analysis of counterproductive work behaviour was presented in three steps with control variables (education, ethnicity, religion, tenure, marital status, relation. sex, and age) entered in the first block followed by the predictor variables hostile work environment and interpersonal conflict in the second block.

As indicated in Table 6 above, the correlation among the predictor variables, hostile work environment and interpersonal personal conflict was positive and significant  $r_{(318)} = .42, p < .01$ , reflecting a significantly medium correlation between the variables (Cohen, 1988). This correlation coefficient is not too high above .70 (Field, 2009) indicating no problem with multicollinearity and hence conducive for regression analysis.

The hierarchical multiple regression analysis in Table 7 showed a significant model ( $F_{(10, 307)} = 17.69, p = .000$ ). All the 10 variables entered into the regression model significantly contributed and accounted for 37% of the variation in counterproductive work behaviour among wholesale and retail shop workers in Accra and Kumasi ( $R^2 = .37, p = .000$ ). The output observed indicated that, the control variables significantly increased the variability in counterproductive work behaviour by 11% out of the overall 37% ( $R^2 = .11, F_{(8, 309)} = 4.88, p = .000$ ). Finally, out of the overall 37% of the variance in counterproductive work behaviour (the criterion), the presence of hostile work environment (predictor variable) significantly increased the variability by 23% ( $\Delta R^2 = .23, \Delta F_{(1, 307)} = 109.70, p = .00$ ). This therefore means that the

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour predictor variable (hostile work environment and interpersonal conflict) considered in the study actually accounted for a greater percentage change in variation and significantly predicted the criterion variable (counterproductive work behaviour) better compared to the control variable in the study. In addition, the presence of interpersonal conflict lead to 3% increase in variance ( $\Delta R^2 = .03$ ,  $\Delta F_{(1, 308)} = 9.55$ ,  $p = .00$ ). The standardized regression coefficients and the confidence interval are presented in Table 7.

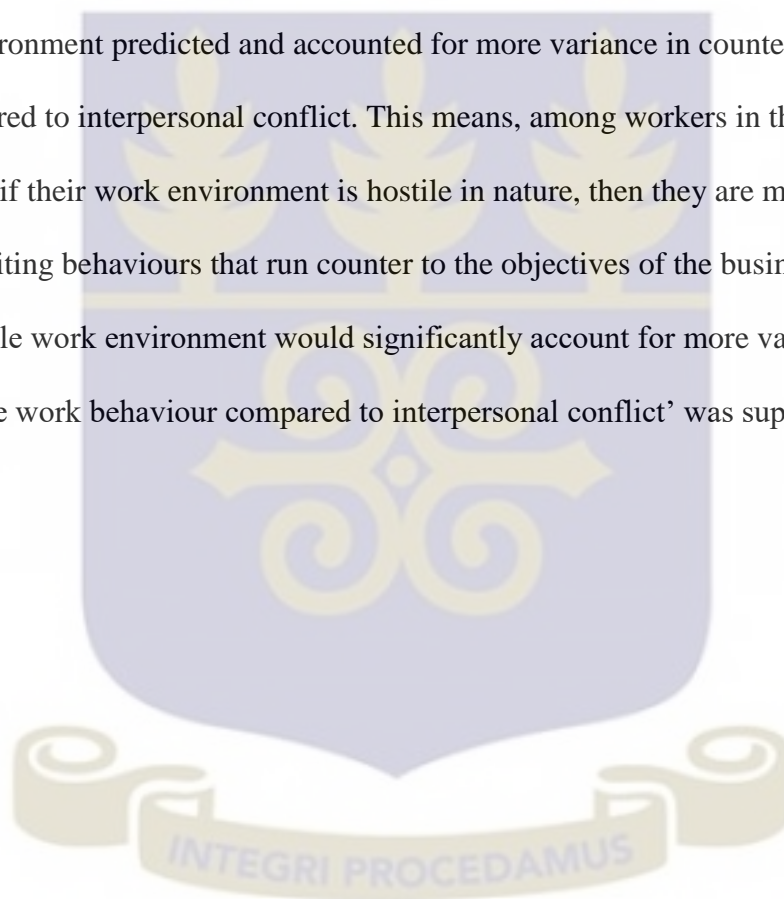
*Table 7: Summary of Hierarchical Multiple Regression Analysis of Hostile Work Environment and Interpersonal Conflict as Predictors of Counterproductive Work Behaviour*

Variable	$\beta$			95% CI
	Step 1	Step 2	Step 3	
Education	.03	.04	.04	[-1.62, 3.81]
Ethnicity	-.03	-.01	-.02	[-1.97, 1.19]
Religion	.15**	.13*	.06	[-1.19, 4.93]
Tenure	.08	.08	.02	[-1.99, 3.24]
Marital Status	-.06	-.06	-.05	[-4.87, 1.31]
Relation	-.01	-.04	-.11*	[-10.48, -0.86]
Sex	.01	.05	.05	[-1.77, 6.01]
Age	.23***	.24***	.12*	[0.04, 0.62]
Interpersonal Conflict		.17**	-.05	[-0.33, 0.12]
Hostile Work Environment			.57***	[0.54, 0.80]
$F$	4.88***	5.52***	17.69***	
$\Delta F$		9.55**	109.70***	
$R^2$	.11***	.14**	.37***	
$\Delta R^2$		.03**	.23***	

*Note: N = 318, CI = Confidence interval, \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$*

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Examining the individual contributions using the standardized regression coefficients and the t values (see Appendix E) in step 3, hostile work environment made a significant contribution by explaining the variation in counterproductive work behaviour among wholesale and retail shop workers in Accra and Kumasi ( $\beta = .57, p < .001$ ). Interpersonal conflict also correlated and accounted for a significant variance in counterproductive work behaviour ( $\beta = .17, p < .01$ ) in step 2. Comparing the individual contributions by the two predictors in steps 2 & 3, hostile work environment predicted and accounted for more variance in counterproductive work behaviour compared to interpersonal conflict. This means, among workers in the wholesale and retail businesses, if their work environment is hostile in nature, then they are more likely to respond by exhibiting behaviours that run counter to the objectives of the business. Hence, the hypothesis 'Hostile work environment would significantly account for more variance and predict counterproductive work behaviour compared to interpersonal conflict' was supported by the data.



Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**H<sub>2</sub>:** Gender harassment would account for more variance in counterproductive work behaviour than abusive supervision, ethnic discrimination and religious harassment.

*Table 8: Hierarchical Multiple Regression coefficients for Hostile Work Environment Sub-Constructs as predictors and Counterproductive Work Behaviour as criterion*

Variable	Counterproductive Work Behaviour			
	Step 1	Step 2	Step 3	95% CI
Relation	-0.72 (-.01)	-2.56 (-.05)	-5.88* (-.12)	[-10.59,-1.16]
Age	0.81***(.29)	0.42**(.15)	0.38**(.13)	[.11,.64]
Gender harassment		2.18***(.49)	1.25***(.28)	[.67,1.82]
Abusive supervision			0.61***(.26)	[.32,.90]
Ethnic discrimination			0.69*(.14)	[.13,1.25]
Religious harassment			- 0.05 (-.01)	[-.80,.70]
<i>F</i>	14.10***	44.87***	29.94***	
$\Delta F$		97.75***	10.80***	
<i>R</i> <sup>2</sup>	.08***	.30***	.37***	
$\Delta R^2$		.22***	.07***	

*N* = 318, *CI*: Confidence Interval, \*\*\**p* < .001, \*\**p* < .01, \**p* < .05

Note: Standardized Coefficients ( $\beta$ ) in parentheses

Using the hierarchical multiple regression analysis, a significant model containing the two controls (relation and age) and four subthemes of hostile work environment emerged ( $F_{(6, 311)} = 29.94, p = .00$ ) accounting for 37% ( $R^2 = .37$ ) of the variability in counterproductive work behaviour. Comparing the *t* values (see Appendix E), results showed that gender harassment

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour accounted for more variance ( $\beta = .28, p < .01$ ), followed by abusive supervision ( $\beta = .26, p < .01$ ), and ethnic discrimination ( $\beta = .14, p < .05$ ) in predicting counterproductive work behaviour respectively. Religious harassment however did not account for a significant variance in predicting counterproductive work behaviour. This means, harassing workers based on their gender (i.e. male/female) is what explains most the reason why workers engage in counterproductive work behaviour among the sample studied followed by abusive supervision and ethnic discrimination. Religious harassment did not contribute much. Observing from the demographic data, most Christian workers reported working under a Christian owner, Muslims for Muslims and Traditionalist for Traditionalist. These observations may have led to the reason why religious harassment failed to explain a significant variance. Therefore the hypothesis that 'Gender harassment would account for more variance in counterproductive work behaviour than abusive supervision, ethnic discrimination and religious harassment' was supported by the current data.

**H<sub>3</sub>:** Age and sex of workers will significantly moderate the relationship between interpersonal conflict and counterproductive work behaviour. The Hierarchical regression was used to analyse this hypothesis.

*Moderation effect of Age on Interpersonal Conflict-Counterproductive Work Behaviour*

*Relationship*

To test for the moderation effect, the researcher used hierarchical multiple regression. As proposed by Cohen, Cohen, Aiken, and West (2003) the analysis was conducted in three steps. The primary condition for testing for moderation effect is that the predictor variable(s) and the

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour criterion variable (s) should be related (Holmbeck, 1997) and this was realized as illustrated in Table 6. Again, the predictor (interpersonal conflict) and the moderator variable (age of respondent) were centred (Frazier, Tix & Barron, 2004). In addition a cross-product was formed using the centred predictor and moderator variables. The predictor variable (interpersonal conflict) was entered in the first step, interpersonal conflict and age of respondent were entered in the second step, followed by the interaction term (interpersonal conflict\*age of respondent) in the third step.

The model containing the interaction term was significant [ $\Delta F_{(1,314)} = 7.62, p = .01$ ] and explained 2.1% ( $R^2 = .021, p < .01$ ) of the variance in counterproductive work behaviour. The result is shown in Table 9 below:

*Table 9: The Results of Hierarchical Regression Analysis for the moderation effect of Age of Respondents on the relationship between Interpersonal Conflict and Counterproductive Work Behaviour*

Predictor	Counterproductive Work Behaviour		
	B	SE	$\beta$
Step 1			
Conflict	0.35	0.12	.16**
Step 2			
Interpersonal Conflict	0.37	0.12	.17***
Age	0.82	0.15	.29**
Step 3			
Interpersonal Conflict	0.47	0.12	.21***
Age	0.96	0.16	.34***
Conflict*Age	0.06	0.02	.16**

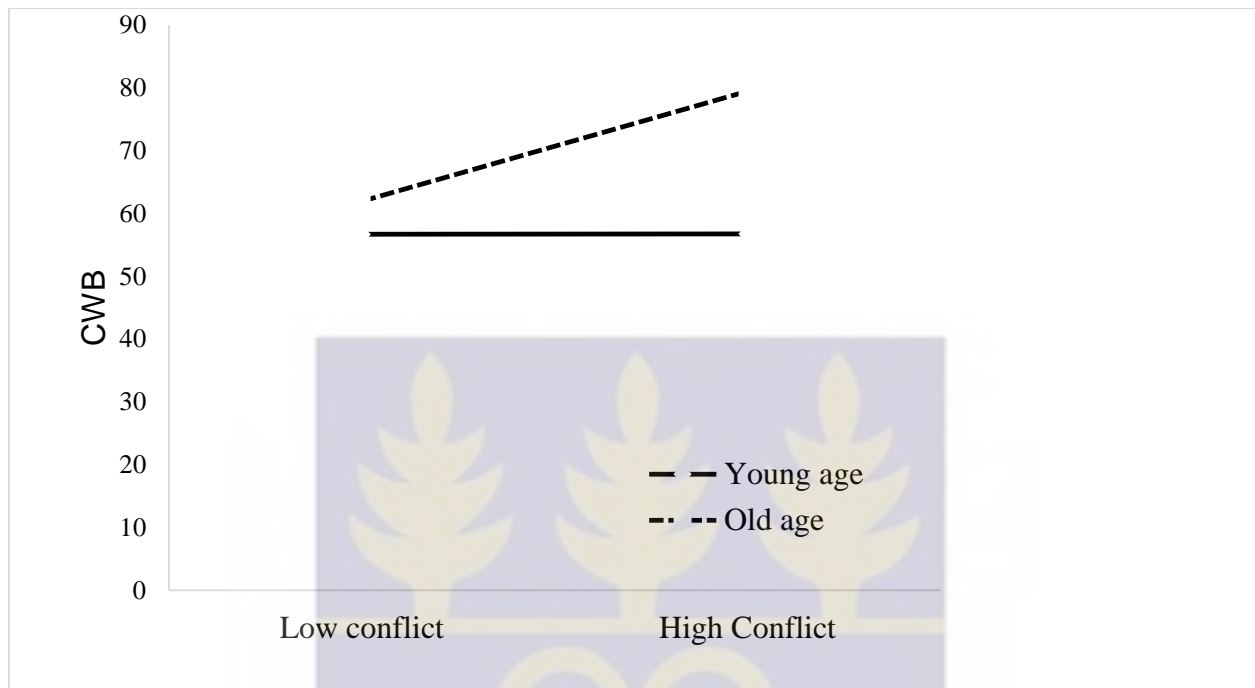
$R^2 = .026$  for step 1,  $R^2 = .111$  for step 2,  $R^2 = .132$  for step 3,  $\Delta R^2 = .026$  for step 1,  $\Delta R^2 = .085$  for step 2,  $\Delta R^2 = .021$  for step 3, \*\*\* $p < .001$ , \*\* $p < .01$

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Step 1 indicated that interpersonal conflict significantly accounted for 2.6 percent variance in predicting counterproductive work behaviour ( $R^2 = .026$ ,  $\beta = .16$ ,  $p < .01$ ). Meaning increased levels of interpersonal conflict leads to increased engagement in counterproductive work behaviour. In step 2, age of workers (moderator) significantly accounted for 8.5 percent variance in predicting counterproductive work behaviour [ $\beta = .29$ ,  $\Delta F_{(1, 315)} = 30.08$ ,  $p = .00$ ]. From the third step of the regression analysis, the interaction term significantly accounted for 2.1 percent of the variance in predicting counterproductive work behaviour [ $\beta = .16$ ,  $\Delta F_{(1, 314)} = 7.62$ ,  $p = .01$ ]. Observing from the third step, the coefficient of the relationship between interpersonal conflict and counterproductive work behaviour increased from ( $\beta = .17$ ) in step 1 to ( $\beta = .21$ ) in step three. This means that the interaction term strengthened the relationship between the predictor and the criterion. Given that the standardized coefficient of the interaction term was positive in the third step, the increased relationship between interpersonal conflict and counterproductive work behaviour was strengthened for both younger and older aged workers.

The nature of the interaction effect was further explored using a simple slope test by graphing the interaction effect using values of the moderator at one standard deviation above and below the mean (Preacher, Curran, & Bauer, 2006). As shown in Figure 2 below, the relationship between interpersonal conflict was stronger and significant for older workers (+1 SD of Mean Age) only ( $\gamma = .94$ ,  $SE = .25$ ,  $t = 3.99$ ,  $p < .01$ ) but not for younger workers (-1SD of Mean Age) workers ( $\gamma = .00$ ,  $SE = .19$ ,  $t = .02$ ,  $p = .98$ ). This suggests that older and younger workers' engagement in counterproductive work behaviour as a result of interpersonal conflict at work increased but the rate of increase was significantly higher for older workers but the increase for younger workers did not reach statistical significance.

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour



**Figure 2: Observed plot of the moderator effect of Age of respondents on the relationship of interpersonal conflict and counterproductive work behaviour**



## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

*Moderation effect of Sex of respondents on Interpersonal Conflict-Counterproductive Work**Behaviour Relations**Table 10: The Results of Hierarchical Regression Analysis for the moderation effect of Sex of Respondents on the relationship between Interpersonal Conflict and Counterproductive Work Behaviour*

Variable	$\beta$	<i>t</i>	$\Delta R^2$
Step 1			
Relation	-.01	-0.26	.08***
Age	.29	5.30***	
Step 2			
Relation	-.05	-0.84	.03**
Age	.29	5.47***	
Conflict	.18	3.29**	
Step 3			
Relation	-.05	-0.86	.00
Age	.30	5.45***	
Conflict	.18	3.32**	
Sex	-.03	-0.50	
Step 4			
Relation	-.06	-1.05	.02*
Age	.29	5.36***	
Conflict	.38	3.97***	
Sex	-.04	-0.72	
Conflict*Sex	-.24	-2.51*	

$R^2 = .082$  for step 1,  $R^2 = .113$  for step 2,  $R^2 = .113$  for step3,  $R^2 = .131$  for step4, \*\*\* $p < .001$ , \*\* $p$

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

The model containing the control variables, predictor and the interaction term was significant and explained 13.1 percent of the variance in predicting counterproductive work behaviour, [ $F_{(5, 312)} = 9.41, p = .00$ ]. This means that, whether a worker is related to owner

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour (business) or not, age, interpersonal conflict at the workplace, the sex of the worker and the interaction between conflict and sex of a worker all contributed by explaining 13.1 percent of the occurrences of counterproductive work behaviour in wholesale and retail shops in Accra and Kumasi. Step 1 indicated that control variables (relation and age) had a significant influence on counterproductive work behaviour by explaining eight per cent of the variance ( $R^2 = .08$ ,  $\Delta F_{(2,315)} = 14.10$ ,  $p = .00$ ). Relation failed to contribute significant variance in predicting counterproductive work behaviour ( $\beta = -.01$ ,  $t = -0.26$ ,  $p > .05$ ) but age of respondent contributed significantly to predicting counterproductive work behaviour ( $\beta = .29$ ,  $t = 5.30$ ,  $p < .001$ ). This shows that as workers increase in age, their engagement in counterproductive work behaviour also increases. However whether worker is related to the owner of the business or not failed to significantly explain why workers engage in counterproductive work behaviour.

The second step also indicated that interpersonal conflict (predictor) accounted for three percent variance in predicting counterproductive work behaviour [ $\Delta R^2 = .03$ ,  $\Delta F_{(1,314)} = 10.84$ ,  $p = .00$ ]. This means that increased engagement in interpersonal conflict predicts increased engagement in counterproductive work behaviour by workers ( $\beta = .18$ ). From the third step of the regression analysis, the moderator variable, sex failed to contribute a significant variance in predicting counterproductive work behaviour [ $\Delta R^2 = .00$ ,  $\Delta F_{(1,313)} = .25$ ,  $p = .62$ ]. In the final step four, the interaction term accounted for two percent variance in predicting counterproductive work behaviour [ $\Delta R^2 = .02$ ,  $\Delta F_{(1,312)} = 6.30$ ,  $p = .01$ ]. When the interaction term was introduced in the fourth model, it was observed that the standardized coefficient of the relationship between interpersonal conflict (predictor) and the counterproductive work behaviour (criterion) increased from ( $\beta = .18$ ) in step 2 to ( $\beta = .38$ ) in step 4. This therefore means, the moderator significantly strengthened the relationship between interpersonal conflict and counterproductive work

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour behaviour. Sex was dummy coded of which 1 stood for males and 0 for females. The standardized coefficient of the interaction term in the fourth step being negative suggests that the prediction of counterproductive work behaviour by interpersonal conflict was significantly higher for female workers than for male workers.

The nature of the interaction effect of sex was further examined by the use of a simple slope test as suggested by Preacher et al., (2006). As shown in Figure 3 below, the simple slope was significant only for the female sex ( $\gamma = .81, SE = .28, t = 2.89, p < .01$ ) and not for the male sex ( $\gamma = .12, SE = .18, t = .67, p = .50$ ). The result suggests that interpersonal conflict at work was positively related to counterproductive work behaviour, only for female workers. The slope relating interpersonal conflict to counterproductive work behaviour was steeper for female workers than male workers. Female workers' counterproductive work behaviour increases when interpersonal conflict at the work place increases. For the male workers, the increase in interpersonal conflict from low to high did not lead to a significant increase in counterproductive work behaviour. This means, experience of interpersonal conflict at work and how it influences the display of counterproductive work behaviour against the organisation differ for females and males. Female workers increase the rate at which they engage in counterproductive work behaviours against the organisation when conflict at work increases while male workers do not necessarily react negatively towards the organisation. Hence the hypothesis that 'Sex will moderate the relationship between interpersonal conflict and counterproductive work behaviour' was supported by the data.

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour



**Figure 3: Observed plot of the moderator effect of Age of respondents on the relationship of interpersonal conflict and counterproductive work behaviour**

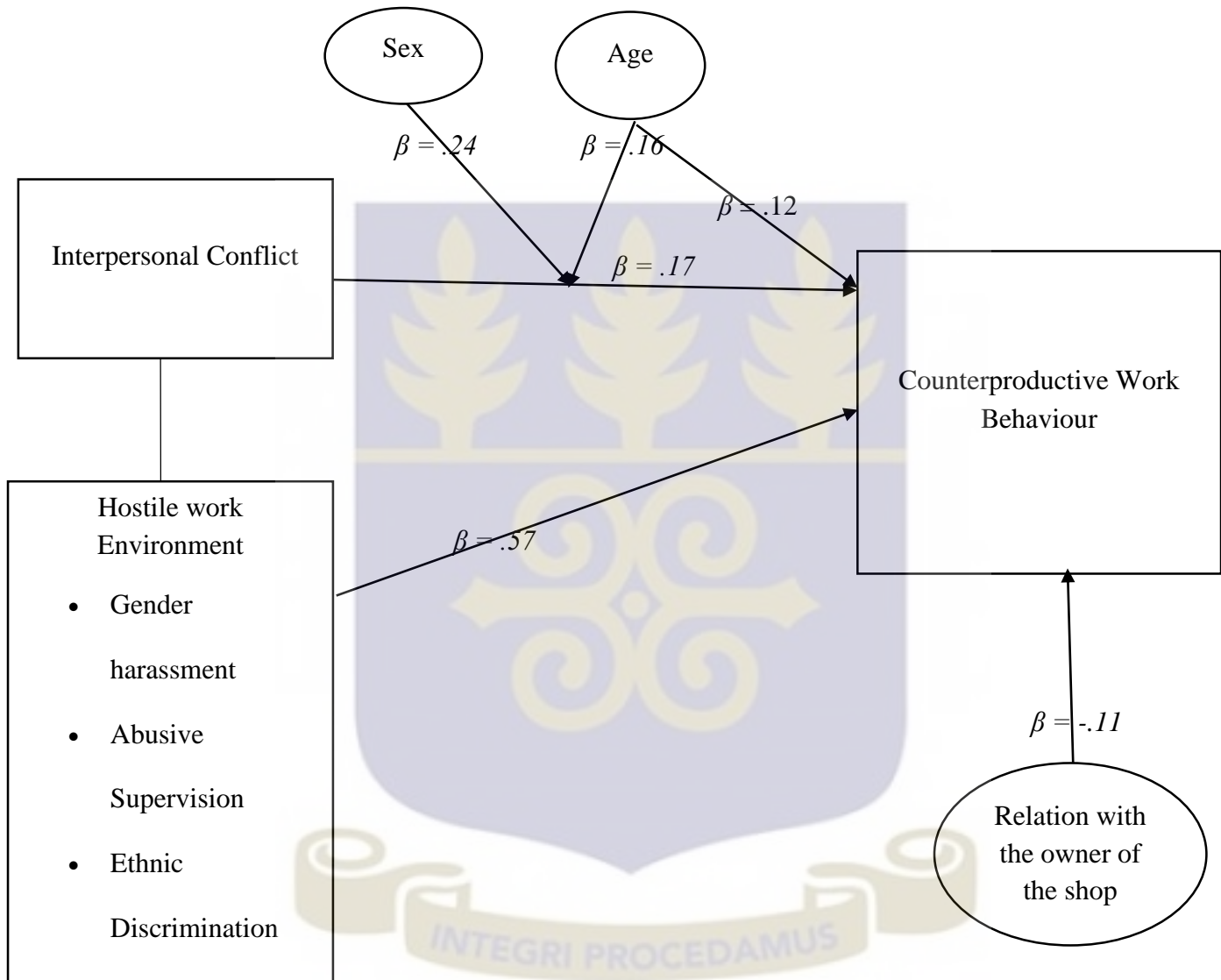


#### 4.4. Summary of Results

1. Hostile work environment accounted for more variance and predicted counterproductive work behaviour compared to interpersonal conflict
2. Gender harassment account for more variance in counterproductive work behaviour, followed by abusive supervision, ethnic discrimination and religious harassment. However, the contributions of ethnic discrimination and religious harassment was not significant
3. Age of respondents moderated the relationship between interpersonal conflict and counterproductive work behaviour. The moderation effect strengthened the relationship between interpersonal conflict and counterproductive work behaviour. That is, at lower and higher levels of interpersonal conflict, both older and younger workers' counterproductive work behaviour increases but the rate of increase was significantly higher for older workers than younger aged workers.
4. Sex of respondents moderated the relationship between interpersonal conflict and counterproductive work behaviour. The moderation effect significantly increased the coefficient of the relationship between interpersonal conflict and counterproductive work behaviour. At lower and higher levels of interpersonal conflict there was a decrease in counterproductive work behaviour for male workers whereas there was an increase of counterproductive work behaviour for the female workers.

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

## Observed Hypothesized Model



**Figure 4:** A summary of the observed relationships between independent, dependent and mediating and moderating variables.

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

#### 4.5. Description of the hypothesized model

The final results model illustrates that both hostile work environment and interpersonal conflict are significantly related to counterproductive work behaviour however, hostile work environment predicted counterproductive work behaviour ( $\beta = .57, p < .001$ ) more. Age and sex of workers moderated the relationship between interpersonal conflict and counterproductive work behaviour such that age and sex increased the standardized coefficient of the relationships. In addition relationship with owner of shop relate significantly with counterproductive work behaviour ( $\beta = -.11, p < .05$ ).

Finally, it was observed that gender harassment accounted for more variance in counterproductive work behaviour compared to abusive supervision, ethnic discrimination and religious harassment. A significant model containing the predictor variables emerged ( $F_{(6, 311)} = 29.94, p = .00$ ) accounting for 37% ( $R^2 = .37$ ) of the variability in counterproductive work behaviour. Comparing the t values (see appendix), results showed that gender harassment accounted for more variance ( $\beta = .28, p < .01$ ), followed by abusive supervision ( $\beta = .26, p < .01$ ), and ethnic discrimination ( $\beta = .14, p < .05$ ) and religious harassment ( $\beta = -.01, p > .05$ ) variability in predicting counterproductive work behaviour respectively. Religious harassment however did not account for a significant variance in counterproductive work behaviour.

## CHAPTER FIVE

### DISCUSSION

#### 5.0 Introduction

The present study examined hostile work environment and interpersonal conflict as predictors of counterproductive work behaviour. Specifically, hostile work environment and interpersonal conflict experienced by wholesale and retail workers in Accra and Kumasi were examined to know the one that could best predict counterproductive work behaviour. In addition, the study assessed whether gender harassment could account for more variance in counterproductive work behaviour than abusive supervision, ethnic discrimination and religious harassment. The study also investigated the extent to which age and sex of workers could increase or decrease the coefficient of the relationship between interpersonal conflict and counterproductive work behaviour. Using previous studies and theories, the results of each research hypothesis is discussed in this chapter. Directions for future research, recommendations for practice and limitations are also discussed in this chapter.

#### 5.1 Discussion of Main Findings

*Relationship between Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour*

It was hypothesized that *hostile work environment will account for more variance in predicting counterproductive work behaviour* compared to interpersonal conflict. Result from the hierarchical multiple regression analysis supported the hypothesis. That is, hostile work

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour environment was the best predictor of counterproductive work behaviour among workers in the wholesale and retail shops in Accra and Kumasi. Initial correlation analysis indicated a significant positive relationship between hostile work environment, interpersonal conflict and counterproductive work behaviour. The finding means that as hostile work environment and interpersonal conflict experienced at the workplace increase, the rate of engagement in counterproductive work behaviour also increases but the increase is more for hostile work environment.

The positive relationship established between hostile work environment, interpersonal conflict and counterproductive work behaviour support past empirical investigations on the variables using formal corporate organisations (e.g. Bayram et al., 2010; Chu, 2014; Lv et al., 2016; Spector et al., 2010). The current finding and past empirical studies regarding the variables suggest that these constructs irrespective of time and sector of work always relate. Increased levels of conflict and hostile work environment lead to increased engagement in counterproductive work behaviour for workers in both formal and informal business organisations. The finding also corroborates with Bowling and Eschleman (2010) study. The researchers reported that organisational constraints and interpersonal conflict associated positively with counterproductive work behaviour. This means that when organisational constraints and interpersonal conflict at work increase, the rate at which employees also engage in counterproductive work behaviour increases.

Omar et al. (2010) studied Malaysian civil servant workers and observed that work-related stress and job satisfaction predicted organisational deviant behaviour. This means that as work-related stress increases, organisational deviance increases but as employees are satisfied

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour with their work engagement organisational deviance decreases. In the current study, interpersonal conflict and hostile work environment correlated with counterproductive work behaviour. That is, as interpersonal conflict at work increases, it creates some form of work related stress in the workers hence influences them to retaliate by being counterproductive towards the organisation. Being counterproductive towards the organisation means the worker now deviates from the acceptable work behaviour which is in turn harmful to the organisation. Likewise experience of hostile work environment will make workers less satisfied with the work they do hence respond by engaging in counterproductive work behaviour which is a deviation from the rule of engagement at the workplace.

The stressor-emotion model of counterproductive work behaviour explains counterproductive work behaviour as resulting from a problem-laden work environment. That is, the theory understands counterproductive behaviour at work as resulting from the link between series of organisational variables at the workplace. The explanation therefore suggests that hostile work environment resulting from series of organisational factors which are gender harassment, ethnic discrimination, abusive supervision and religious harassment will create more stress in workers which will in turn predict more negative response compared to interpersonal conflict. The result from the current study indicated that indeed hostile work environment was the best predictor of counterproductive work behaviour compared to interpersonal conflict. The agreement of the present study with the theory suggests that hostile work environment is more harmful to organisation than expected and need to be checked by all business stakeholders.

Examining the literature (e.g. Lv et al., 2016; Omar et al., 2011; Vance et al., 2004) and the current finding, it should be noted that hostile working environment has a detrimental effect

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour on organisations. These experiences have in them some motivating elements that propel workers and leave them with no other chance than to engage in more positive and productive behaviours. This is because, studies on hostile work environment including injustices, stress, abusive supervision, and workplace harassment were all found to lead to negative work behaviours and health related problems. In addition, the similar findings in Ghana and other parts of the world indicate that, irrespective of the setting, country and culture, the consequences of creating a work environment that is hostile in nature are counterproductive work behaviour and other negative workplace behaviours which are dangerous to the health, life and growth of business organisations.

*Relationship between Gender Harassment, Abusive Supervision, Religious Harassment, Ethnic Discrimination and Counterproductive Work Behaviour*

It was also observed from the study that, only gender harassment and abusive supervision accounted for a significant variance in counterproductive work behaviour. In line with the hypothesis, gender harassment made the most significant contribution to the display of counterproductive work behaviour at the workplace. This therefore indicates a support for the hypothesis and suggests that, harassing workers based on their gender does influence and increase the rate at which the workers engage in counterproductive work behaviour. Examining the literature on hostile work environment, it was observed that most of the definitions are based on sexual harassment of which gender harassment is a major component. These experiences at work cost most business organisations fortunes and render some insolvent (Jackson & Newman, 2004; Vance et al., 2004).

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

The current finding is consistent with past legal and political science studies, that have reported a significant number of lawsuits against supervisors and other organisational stakeholders for hostile and sexual work environment (e.g., Calvasina et al., 2011; Mattioli, 2010), to the extent that male victims of sexual harassment are now willing and ready to risk their job by using the legal system even in the face of difficulty in finding jobs (Mattioli, 2010). However, in the current finding, these workers failed to use the legal channel and rather sought redress on their own by being more counterproductive which in a way punishes the owners financially.

Also observations made by Alexander (2011) indicated that employee experiences of an abusive supervision is positively associated with the rate at which these employees engage in interpersonal deviance, supervisor-directed deviance, and had higher levels of depression. In addition, abusive supervision has been found to predict absenteeism, poor health and loss of productivity (Tepper et al., 2006). Fitzgerald et al. (1997) reported that workplace harassment results in stress reactions, health complaints and lower job satisfaction. Mitchell and Ambrose's (2007) study in the Southeastern part of United States also reported positive and significant relationship between abusive supervision and interpersonal deviance, supervisor-directed deviance and organisational deviance.

In line with reactance theory, it could be argued that employees within this sector of work found gender harassment, a subtheme of hostile work environment, to exert the greatest pressure on them and threatened their ability to cope followed by abusive supervision and ethnic discrimination hence responded by being more counterproductive. Religious harassment's inability to exert a significant influence on workers' counter productivity could be explained on

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour the basis of the demographic representation on religion. From the demographics of participants and their bosses, most of the workers reported being the same religious denomination with their bosses. This therefore means that, bosses do not use religion to create hostile working environment but rather gender harassment, abusive supervision and ethnic discrimination.

*Age of workers as a moderator on the relationship between Interpersonal Conflict and Counterproductive Work Behaviour*

Results provided support for this hypothesis, indicating that age of workers did moderate the relationship between the experience of interpersonal conflict and engagement in counterproductive work behaviour. Age of workers was also found to be positively correlated with counterproductive work behaviour. This, in turn suggests that as age increases, the rate at which workers engage in counterproductive work behaviour increases. The coefficient of the relationship of the interaction term and the dependent variable was positive indicating that both older and younger workers were high on counterproductive work behaviour but the increase was significant for older workers. This means that older workers among the sample studied are more prone to exhibiting counterproductive work behaviours especially when there is conflict than their younger counterparts.

The present finding is in support with Nyarko et al. (2014) study. The researchers examining formal corporate workers in Accra reported that older workers' rate of engagement in counterproductive work behaviour was significantly higher than younger workers. Examining this relationship in the present study using wholesale and retail shop workers in Kumasi and

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour  
Accra also indicated the same outcome. This means that within the formal and informal sectors in Accra and Kumasi, older workers tend to be more counterproductive.

The nature of the moderation effect of age on the relationship between interpersonal conflict and counterproductive work behaviour in the present study contradicts past empirical findings (e.g. Marchand et al., 2015; Wiltshire, 2015). Bayram et al. (2009) for example reported a moderation effect of age on the relationships between stressors at work and found that age of workers moderated the relationship between organisational constraints and counterproductive work behaviour. Examining the nature of the moderation effect, they observed that younger workers engaged more in counterproductive work behaviour as a result of high organisational constraint than older workers. Similarly, Kumi (2013) also found that older workers engaged less in counterproductive work behaviour than younger workers. Kumi (2013) explained that older and married individuals are highly matured in terms of behaviour and relatively have lots of responsibilities than single and younger workers. Hence are more careful in the way the former responds to interpersonal conflict at work. Further, the researcher reported that married and older persons viewed taking excessive breaks, stealing and intentionally working slowly as bad compared to younger and single persons.

*Sex of Respondents as a moderator on the relationship between Interpersonal Conflict and Counterproductive Work Behaviour*

The sex of a worker was observed to moderate the relationship that exists between interpersonal conflict and counterproductive work behaviour such that it increased the

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour standardized coefficient of the relationship. In addition, the interaction term between sex of a worker and interpersonal conflict was observed to be negative. Result of the interaction term being negative indicates that as females engage more in counterproductive work behaviour males showed no significant display of counterproductive work behaviour. That is, females' counterproductive work behaviour increases as conflict also increases.

The current finding agrees with past empirical studies (e.g., Spector & Zhou 2014; Sliter et al., 2012). These researchers found sex to moderate the relationships between stressors, personality, adiposity, incivility and counterproductive work behaviour at the workplace. It has been reported that overweight and obese females experienced significantly greater levels of incivility than males, whereas underweight males also experienced significantly more incivility than did their female counterparts (Sliter et al., 2012).

The nature of the moderation effect of sex in the study contradicts with Ferguson et al. (2012) study. The researchers using moderated mediation analysis reported that gender moderated the relationship between work-family conflict and organisational deviance behaviour such that men engaged in more deviant behaviours in response to family-to-work conflict than females. Also, the finding contradicts studies that use sex to moderate the relationship between aggression and other variables (e.g., Bowker, Markovic, Cogswell & Raja 2012; Fives, Kong, Fuller & DisGiuseppe, 2011). With adolescents, for example, Grych and Kinsfogel (2010) found a stronger correlation between aggressive attitudes and aggression in males than females. With adults, Wickens et al. (2012) showed that gender moderated relationships of aggressive driving with several predictors. Valentine and Rittenburg (2007) explained that decisions to act and put up a particular behaviour by women were based on interpersonal relations, caring, and doing

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour work well while that of men were based on competitive success and extrinsic rewards (e.g. wage/salary). Therefore, at the presence of low or high interpersonal conflict, females with their caring nature are more likely to reduce the level at which they engage in counter-productivity compared to men. In support of Valentine and colleague's report, Kumi (2013) observed that majority of the female respondents in his study strongly agree that harming co-worker is bad compared to males. The study however indicated that female workers despite their caring nature engaged more in counterproductive work behaviour than men.

## **5.2 Contributions of the Present Study**

The primary strength of this study is the examination of the relationship between hostile work environment, interpersonal conflict and counterproductive work behaviour among wholesale and retail shop workers in Accra and Kumasi. The findings suggest that these variables are related such that hostile work environment was the most imperative predictor of counterproductive work behaviour among workers in the wholesale and retail setting hence, the need for ardent attention. Interpersonal conflict created from non-organisational issues like differences in workplace control, hiring decisions and poor workplace leadership also accounted for some three percent significant variance in counterproductive work behaviour and should be checked as well.

In addition, literature on the conceptualisation of hostile work environment are mostly on sexual harassment (e.g., Calvasina et al., 2011; Mattioli, 2010), abusive supervision (e.g., Chu 2014; Inness et al., 2005) and workplace harassment (e.g., Bowling & Beehr, 2006). The present study however, expands the definition of hostile work environment to include gender

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour harassment, abusive supervision, religious harassment and ethnic discrimination. Findings indicated that hostile work environment conceptualised in this manner predicted counterproductive work behaviour and accounted for about 23% of the variability. This finding makes significant contribution to theory and methodology.

Finally, this study found that a unit increase in interpersonal conflict was observed to increase female workers' engagement in counterproductive work behaviour while there was a decrease for male workers. Also, a unit increase in interpersonal conflict led to an increase in the engagement in counterproductive work behaviour for older workers. This observation is noteworthy because past future studies observed the opposite (e.g. Berry et al., 2007; Hershcovis et al., 2007; Kumi, 2013; Marchand et al., 2015; Wiltshire et al., 2014). This therefore provides a better understanding of the relationship between interpersonal conflict and counterproductive work behaviour.

### **5.3 Limitations and Recommendations for Future Research**

One likely drawback of the present study is that the researcher only examined gender harassment, abusive supervision, ethnic discrimination and religious harassment as constituting hostile work environment. Future studies can include more variables so as to broaden the understanding of hostile work environment.

Also, stressor-emotion theory of counterproductive work behaviour emphasized the role of emotions as a mediator between work stressors (hostile work environment and interpersonal conflict) and counterproductive work behaviour but the present study did not measure that. So future studies should employ methodologies that allow for moderated-mediation analysis such

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour that the effect of emotions will mediate the moderating effect of high interpersonal conflict and hostile work environment experiences, but not for low interpersonal conflict and hostile work environment experiences.

Furthermore, this study employed purely quantitative method and so did not allow the researcher to assess the unique experiences of conflict and hostile workplace environment by workers. It is therefore suggested that future researchers use both qualitative and quantitative methods of research. Qualitative methods especially interviews provide prospect for the researcher to hear from respondents' own experiences of hostility and interpersonal conflict and whether being counterproductive was as a result of these factors or other factors.

#### **5.4. Recommendations for Practice**

In the informal wholesale and retail businesses, owners are more likely to view workers as potential thieves hence become very hard on them to the extent of making the place hostile for them to live in. Given the above reports, the result of such actions from owners and supervisors of the sector is counterproductive work behaviour on the part of workers. Every human by nature wants to feel respected and appreciated no matter the situation, therefore there is the need for owners of wholesale and retail shops to create supportive, conducive and enabling work space that respects, protects, cares for and treat the worker as a vital resource for the growth of the shop. When this need is met for the worker, he or she may perform beyond what was expected.

In addition, policy makers and the municipal authorities could also engage in awareness and promotional programmes necessary to change attitudes and prejudices against workers and to modify the traditional role of labour review services towards a more protective and human

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour relations approach providing information, advice and training for owners and workers alike. These training should help the employer and employee understand each other, the significance of each other and the need for owners to create conducive atmosphere free from accident, frequent interpersonal conflict, gender discrimination, abusive supervision, ethnic discrimination and religious harassment. On the part of the workers, the training should teach them about loyalty, honesty, and the need to respect and put up good performance. In addition, the municipal assemblies that provide public health care services at the various market, localities and municipalities could incorporate occupational health into their programmes and services.

### **5.5 Conclusion**

The results of the present study suggest that interpersonal conflict and hostile work environment play vital roles as antecedents of counterproductive work behaviour. That is, work environment that is full of gender and religious harassment, abusive supervision and ethnic discrimination provide justification for workers to engage in counterproductive work behaviour such as theft, inappropriate verbal actions, misuse of information, unsafe behaviour, destruction of property, poor attendance, and misuse of resources/time. In addition, as interpersonal conflict at work increases, engagement in counterproductive work behaviour increases such that it was a considerable problem among female and older workers and not for males and younger workers within the wholesale and retail shops in Accra and Kumasi. Therefore an employer who wants to observe a positive and loyal behaviour from workers in the wholesale and retail businesses should provide conducive work environment that respects and treats workers as vital resources for the growth of the shop.

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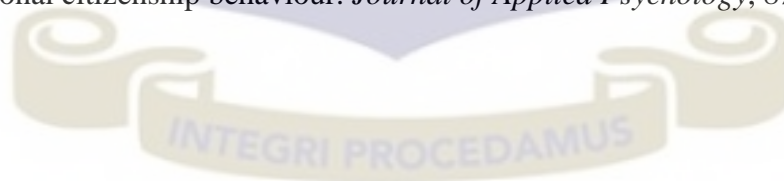
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## APPENDIX A: QUESTIONNAIRE

### DEPARTMENT OF PSYCHOLOGY

#### UNIVERSITY OF GHANA

**Dear respondent,**

I am a graduate student from University of Ghana embarking on a research titled “*Hostile work environment and interpersonal conflict as predictors of Counterproductive work behaviour among wholesale and retail shop workers in Accra and Kumasi*” as partial fulfilment of my MPhil programme at University of Ghana Graduate school. There is no right or wrong answer rather the degree to which you agree or disagree with the various questions is what the researcher is interested in. I therefore crave your indulgence to help me tease out the relations that exist among the variables in the study.

Further, you are reminded that your participation in this study is voluntary, which means that you have the right to choose not to participate in this research study if you wish to do so. However, your participation would be much appreciated. Please be informed that should you choose to take part in this study and later want to withdraw, you will withdraw from the research study without distress of any negative costs following your withdrawal. The questionnaire does not require an identification of any kind. Responses received will be kept confidential and solely used for academic purposes.

### INFORMED CONSENT FORM

I agree to be a participant in this study. I acknowledge my voluntary participation in this study and that if I wish to withdraw during the process, I am free to do so. I am aware that anonymity and confidentiality of the data will be maintained.

Should you have any questions or concerns related to this research, please feel free to email me on

[ansahnyarkom5@gmail.com](mailto:ansahnyarkom5@gmail.com)

---

Signature of participant

---

Date

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

---

 Signature of researcher(s)

---

 Date
**Section One**

In the past month working here, to what extent have you experienced these situations as you interact with other coworkers? Please respond to the various questions by **TICKING (√)** using the response scale below.

**Response scale****1 = Never****2 = Once or Twice****3 = Once or Twice a MONTH****4 = Once or Twice a WEEK****5 = Every Day**

S/N	Questions	1	2	3	4	5
1	Are you in a quarrelling situation with someone at work caused by differences in workplace control?					
2	Are you in a disagreement with someone at work because of a shop/enterprise rule?					
3	Do you disagree with someone about hiring decisions in your workplace?					
4	Do you disagree with someone over work-related issues that do not pertain to a specific work task?					
5	Do you dispute with someone at work because of poor workplace leadership?					
6	Do others delay your work because the workplace procedure allows them to?					
7	Does someone make your life more difficult over work-related issue that does not pertain to a specific work task?					

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8	Do others block you from attaining your objectives because of differences in workplace power?					
9	Do you make someone's life more difficult over work-related issue that does not pertain to a specific work duty?					
10	Do you block others from attaining their objectives because of differences in workplace influence?					
11	Do you delay someone's work because your workplace procedure allows you to?					
12	Do you feel anxious due to the actions of someone with more workplace power?					
13	Do you feel frustrated with others because of issues related to a shop/enterprise policy?					
14	Do you feel mad due to conflicts over organizational changes?					
15	Do you feel tense because others in your workplace do not value your work?					
16	Do you feel frustrated with others because of issues related to workers employment?					

**Section Two**

In the past month working here, to what extent have you experienced these situations as you interact with your supervisor in relation to your work? The items were prefaced with the statement, "My boss..." Respondents used a five-point response scale.

**Response scale**

**1: I cannot remember him/her ever using this behaviour with me**

**2: He/she very seldom uses this behaviour with me**

**3: He/she occasionally uses this behaviour with me**

**4: He/she uses this behaviour moderately often with me**

**5: He/she uses this behaviour very often with me**

S/N	Questions	1	2	3	4	5
1	Made derogatory comments about your ethnicity?					
2	Told jokes about your ethnic group?					

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<b>3</b>	Used ethnic insults to describe you?					
<b>4</b>	Excluded you from social interactions during or after work because of your ethnicity?					
<b>5</b>	Failed to give you information you need to do your job because of your ethnicity?					
<b>6</b>	Made ethnic comments (for example, said people of your ethnicity aren't very smart or can't do the job)?					
<b>7</b>	Made offensive sexist remarks?					
<b>8</b>	Put you down or was arrogant to you because of your sex?					
<b>9</b>	Displayed, used, or distributed sexist or suggestive materials?					
<b>10</b>	Treated you "differently" because of your sex?					
<b>11</b>	Repeatedly told sexual stories or jokes that were offensive to you?					
<b>12</b>	Made offensive remarks about your appearance, body, or sexual activities?					
<b>13</b>	Made unwelcome attempts to draw you into a discussion of sexual matters?					
<b>14</b>	Made gestures or used body language of a sexual nature which embarrassed or offended you?					
<b>15</b>	Made offensive religious remarks?					
<b>16</b>	Put you down or was arrogant to you because of your religion?					
<b>17</b>	Displayed, used, or distributed offensive religious materials?					
<b>18</b>	Treated you "differently" because of your religion?					
<b>19</b>	Repeatedly told religious jokes that were offensive to you?					
<b>20</b>	Ridicules me					
<b>21</b>	Tells me my thoughts or feelings are stupid					

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22	Gives me the silent treatment					
23	Puts me down in front of others					
24	Invades my privacy					
25	Reminds me of my past mistakes and failures					
26	Doesn't give me praise for jobs requiring a lot of effort					
27	Blames me to save himself/herself from embarrassment					
28	Breaks promises he/she makes					
29	Expresses anger at me when he/she is mad for another reason					
30	Makes negative comments about me to others					
31	Is rude to me					
32	Does not allow me to interact with my co-workers					
33	Tells me I'm incompetent					
34	Lies to me					

**Section Three**

Please the following information describes some of the deviant act that most often goes on in the work environment. With all honesty, please respond to the extent to which you agree or disagree about your engagement in such acts. There is no wrong or right answer and again your responses are confidential.

**Response scale****1: Strongly Disagree****2. Disagree****3. Not Sure****4. Agree****5. Strongly Agree**

S/N	Questions	1	2	3	4	5
1	Help another person or advise them how to take shops property or merchandise.					
2	Take cash or property belonging to the shop owner.					

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<b>3</b>	Misuse business expense account					
<b>4</b>	Take cash or property belonging to a co-worker.					
<b>5</b>	Take office supplies from the enterprise.					
<b>6</b>	Take petty cash from the enterprise.					
<b>7</b>	Take cash or property belonging to a customer.					
<b>8</b>	Give away goods or services for free.					
<b>9</b>	Provide goods or services at less than the price established by the shop owner.					
<b>10</b>	Misuse employee discount privileges.					
<b>11</b>	Deface, damage, or destroy property, belonging to a co-worker.					
<b>12</b>	Deface, damage, or destroy property, belonging to a customer.					
<b>13</b>	Deface, damage, or destroy property, equipment, or product belonging to the shop/enterprise.					
<b>14</b>	Conduct personal business during work time					
<b>15</b>	Spend long time chatting on social media (whatsapp, viber, facebook) on phone for reasons not related to work					
<b>16</b>	Take a long break without approval.					
<b>17</b>	Waste too much time on one work just avoid given more work					
<b>18</b>	Use shops resources you aren't permitted to use.					
<b>19</b>	Make long personal calls to the neglect of attending to customers at work.					
<b>20</b>	Endanger yourself by not following safety procedures.					
<b>21</b>	Endanger co-workers by not following safety procedures.					
<b>22</b>	Endanger customers by not following safety procedures.					
<b>23</b>	Fail to read the manual outlining safety procedures					

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

24	Argue or fight with a co-worker					
25	Yell or shout on the job.					
26	Verbally abuse a customer.					
27	Verbally abuse a co-worker.					
28	Verbally abuse a supervisor.					
29	Use sexually open language in the workplace.					
30	Argue or fight with a supervisor.					
31	Argue or fight with a customer.					
32	Be absent from work without a legitimate excuse					
33	Intentionally come to work late					
34	Use sick leave when not really sick					
35	Leave work early without permission					
36	Miss work without calling in					

**BIODATA****A: PERSONAL DATA****Sex:** Male [ ] Female [ ]**Age:** [ ]**Education:** Basic [ ] Secondary [ ] Tertiary [ ]**Ethnicity:** 1. Akan [ ] 2. Ewe [ ] 3. Ga/Adangbe [ ] 4. Dagomba [ ]  
5. Guan [ ] 6. Other [specify.....]**Religion:** 1. Christian [ ] 2. Muslim [ ] 3. African Traditional [ ]  
4. Other [specify.....]**Months/years of experience:** 1. 3-6 months [ ] 2. 1-2years [ ]  
3. 3years and above [ ]**Marital Status:** 1. Married [ ] 2. Single [ ] 3. Divorced [ ]  
4. Cohabitation [ ]**Relation with owner:** 0. My family member [ ] 1. Not my family member [ ]

If family member please specify by writing e.g. mother, father, uncle etc.....

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**B: OWNERS' DATA**

**Sex of your boss:** Male [  ] Female [  ]

**Ethnicity:** 1. Akan [  ] 2. Ewe [  ] 3. Ga/Adangbe [  ] 4. Dagomba [  ]  
5. Guan [  ] 6. Other [specify.....]

**Religion:** 1. Christian [  ] 2. Muslim [  ] 3. African Traditional [  ]  
4. Other [specify.....]

**Marital Status:** 1. Married [  ] 2. Single [  ] 3. Divorced [  ]  
4. Cohabitation [  ]



**APPENDIX B: ETHICAL CLEARANCE**



**UNIVERSITY OF GHANA**  
ETHICS COMMITTEE FOR THE HUMANITIES (ECH)

P. O. Box LG 74, Legon, Accra, Ghana

My Ref. No.....

7<sup>th</sup> December 2015

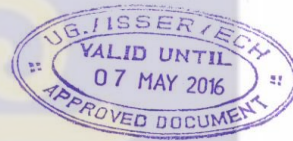
Mr. Michael Ansah-Nyarko  
Department of Psychology  
University of Ghana  
Legon

Dear Mr. Ansah-Nyarko,

**ECH 039/15-16: HOSTILE WORK ENVIRONMENT AND INTERPERSONAL CONFLICT AS PREDICTORS OF COUNTERPRODUCTIVE WORK BEHAVIOUR AMONG WHOLESALE AND RETAIL SHOP WORKERS IN ACCRA AND KUMASI**

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

Expiry Date: 7/05/16  
On Agenda for: Initial Submission  
Date of Submission: 20/08/15  
ECH Action: Approved  
Reporting: Quarterly



Please accept my congratulations.

Yours Sincerely,

Rev. Prof. J. O. Y. Mante  
ECH Chair

CC: Prof. C. C Mate- Kole, Department of Psychology

**APPENDIX C: DESCRIPTIVE STATISTICS****Descriptive Statistics**

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Interpersonal Conflict	318	28.27	9.314	1.034	.137	.850	.273
Hostile work environment	318	55.86	17.298	.597	.137	-.500	.273
Ethnic discrimination	318	9.88	4.176	.745	.137	-.713	.273
Gender harassment	318	11.81	4.575	1.434	.137	2.533	.273
Religious harassment	318	7.86	3.469	1.346	.137	1.652	.273
Abusive supervision	318	26.30	8.651	.543	.137	-.444	.273
Counterproductive work behaviour	318	63.57	20.507	.720	.137	-.185	.273
Valid N (listwise)	318						



Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**APPENDIX D: RELIABILITY AND VALIDITY ANALYSIS RELIABILITY*****INTERPERSONAL CONFLICT CRONBACH ALPHA*****Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.859	.858	16

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
c1	26.64	76.018	.505	.624	.850
c2	26.65	77.822	.500	.641	.851
c3	26.64	77.307	.552	.416	.848
c4	26.49	73.826	.629	.545	.844
c5	26.23	71.623	.660	.562	.841
c6	26.34	76.411	.484	.479	.851
c7	26.42	76.194	.621	.488	.845
c8	26.44	76.122	.531	.416	.849
c9	26.53	75.169	.555	.458	.847
c10	26.72	81.341	.282	.348	.860
c11	26.53	77.381	.433	.590	.854
c12	26.38	77.436	.407	.491	.855
c13	26.50	76.676	.489	.345	.851
c14	26.71	82.176	.213	.357	.863
c15	26.51	78.326	.464	.316	.852
c16	26.57	77.802	.440	.430	.853

***HOSTILE WORK ENVIRONMENT*****Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.922	.926	34

**Item-Total Statistics**

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
h1	54.64	309.305	.426	.583	.921
h2	54.38	309.612	.401	.606	.921
h3	54.45	304.886	.448	.608	.921
h4	54.58	304.382	.526	.589	.920
h5	54.76	308.927	.542	.579	.920
h6	54.59	305.186	.575	.704	.919
h7	54.72	308.084	.537	.681	.920
h8	54.70	305.034	.587	.666	.919
h9	54.66	305.851	.517	.636	.920
h10	54.70	310.997	.397	.603	.921
h11	54.80	309.783	.533	.636	.920
h12	54.72	308.857	.488	.564	.920
h13	54.76	311.189	.404	.521	.921
h14	54.83	308.857	.533	.652	.920
h15	54.61	305.870	.538	.578	.920
h16	54.75	307.158	.602	.633	.919
h17	54.69	305.933	.592	.674	.919
h18	54.55	302.898	.653	.719	.918
h19	54.60	303.534	.594	.654	.919
h20	54.68	305.937	.565	.555	.919
h21	54.67	306.921	.539	.513	.920
h22	54.54	306.018	.523	.456	.920
h23	54.50	302.920	.549	.573	.919
h24	54.53	304.938	.514	.542	.920
h25	54.12	307.066	.391	.328	.922
h26	54.49	312.813	.257	.543	.924
h27	54.60	312.617	.343	.488	.922
h28	54.21	306.642	.419	.594	.921
h29	54.13	308.774	.398	.496	.921
h30	54.44	306.897	.467	.617	.920
h31	54.55	303.267	.619	.597	.919
h32	54.54	305.268	.486	.589	.920
h33	54.50	303.726	.534	.524	.920
h34	54.39	306.495	.407	.546	.922

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.791	.793	6

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
h1	8.36	12.756	.611	.472	.743
h2	8.10	12.463	.627	.502	.738
h3	8.16	12.086	.542	.380	.762
h4	8.29	12.995	.509	.332	.767
h5	8.47	14.538	.458	.300	.778
h6	8.31	13.475	.528	.387	.762

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.806	.809	8

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
h7	10.38	17.100	.577	.502	.776
h8	10.37	16.214	.647	.523	.764
h9	10.32	16.681	.518	.487	.785
h10	10.37	17.746	.419	.378	.800
h11	10.47	17.525	.583	.489	.777
h12	10.39	17.575	.475	.362	.791
h13	10.42	17.945	.410	.369	.801
h14	10.50	17.457	.550	.484	.780

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.833	.835	5

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
h15	6.30	8.555	.580	.376	.816
h16	6.44	9.204	.589	.395	.813
h17	6.39	8.457	.688	.506	.785
h18	6.25	8.175	.698	.592	.781
h19	6.30	8.253	.623	.510	.804

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.843	.845	15

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
h20	24.93	72.236	.469	.395	.834
h21	24.93	72.479	.457	.439	.834
h22	24.79	72.191	.434	.309	.835
h23	24.76	69.883	.511	.532	.831
h24	24.78	70.940	.470	.446	.833
h25	24.38	71.074	.389	.252	.839
h26	24.74	70.803	.409	.459	.837
h27	24.85	72.865	.411	.411	.837
h28	24.47	69.531	.493	.460	.832
h29	24.38	70.187	.502	.433	.831
h30	24.70	69.805	.548	.523	.829
h31	24.80	70.629	.546	.481	.829
h32	24.79	70.691	.464	.430	.834
h33	24.76	70.616	.475	.377	.833
h34	24.65	69.179	.491	.426	.832

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**COUNTERPRODUCTIVE WORK BEHAVIOUR****Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.946	.949	36

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
d1	62.20	439.706	.350	.388	.947
d2	62.33	432.710	.649	.661	.944
d3	62.40	439.134	.520	.511	.945
d4	62.34	434.224	.646	.656	.944
d5	62.31	433.890	.630	.639	.945
d6	62.23	438.065	.468	.441	.946
d7	62.36	434.875	.594	.626	.945
d8	62.15	431.638	.583	.658	.945
d9	62.08	429.996	.578	.660	.945
d10	62.19	438.679	.484	.526	.946
d11	62.35	435.778	.618	.664	.945
d12	62.40	437.441	.606	.701	.945
d13	62.30	436.705	.603	.608	.945
d14	62.02	440.315	.395	.486	.946
d15	61.72	430.879	.487	.531	.946
d16	61.81	432.390	.508	.675	.946
d17	61.93	428.718	.637	.698	.944
d18	62.02	432.159	.605	.641	.945
d19	62.21	432.897	.635	.559	.944
d20	62.11	433.656	.590	.553	.945
d21	62.17	432.384	.551	.629	.945
d22	62.45	441.404	.451	.652	.946
d23	62.27	433.448	.604	.679	.945
d24	62.26	432.499	.657	.666	.944
d25	62.20	432.029	.636	.636	.944
d26	62.27	431.075	.687	.744	.944
d27	62.23	432.948	.599	.722	.945
d28	62.32	434.442	.607	.668	.945
d29	62.32	430.199	.689	.678	.944
d30	62.36	437.273	.546	.599	.945
d31	62.32	437.670	.529	.571	.945
d32	62.04	430.799	.593	.643	.945
d33	62.02	434.331	.517	.678	.945

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

d34	62.02	435.328	.498	.572	.946
d35	61.96	433.099	.546	.598	.945
d36	61.91	432.655	.478	.494	.946

**VALIDITY OUTPUT*****INTERPERSONAL CONFLICT EXPLORATORY FACTOR ANALYSIS*****Descriptive Statistics**

	Mean	Std. Deviation	Analysis N
Are you in a quarrelling situation with someone at work caused by differences in workplace control?	1.64	1.074	318
Are you in a disagreement with someone at work because of a shop/enterprise rule?	1.63	.903	318
Do you disagree with someone about hiring decisions in your workplace?	1.65	.896	318
Do you disagree with someone over work-related issues that do not pertain to a specific work task?	1.79	1.092	318
Do you dispute with someone at work because of poor workplace leadership?	2.05	1.215	318
Do others delay your work because the workplace procedure allows them to?	1.96	1.088	318
Does someone make your life more difficult over work-related issue that does not pertain to a specific work task?	1.87	.903	318
Do others block you from attaining your objectives because of differences in workplace power?	1.84	1.022	318
Do you make someone's life more difficult over work-related issue that does not pertain to a specific work duty?	1.76	1.085	318
Do you block others from attaining their objectives because of differences in workplace influence?	1.58	.909	318
Do you delay someone's work because your workplace procedure allows you to?	1.76	1.082	318

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Do you feel anxious due to the actions of someone with more workplace power?	1.91	1.128	318
Do you feel frustrated with others because of issues related to a shop/enterprise policy?	1.78	1.054	318
Do you feel mad due to conflicts over organizational changes?	1.57	.936	318
Do you feel tense because others in your workplace do not value your work?	1.77	.910	318
Do you feel frustrated with others because of issues related to workers employment?	1.72	1.024	318

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.813
Bartlett's Test of Sphericity	Approx. Chi-Square
	df
	Sig.
	2024.336
	120
	.000

**Total Variance Explained**

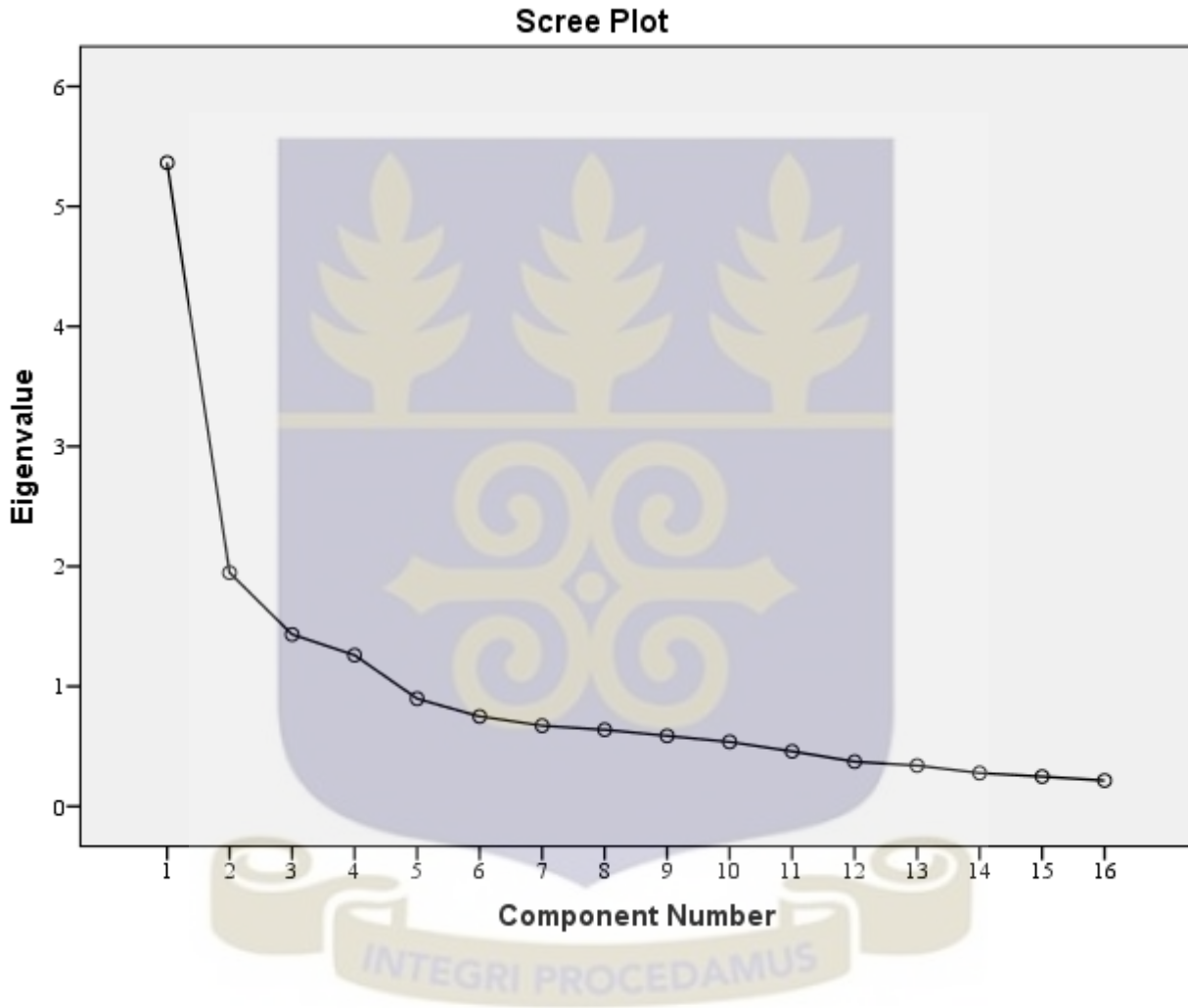
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.365	33.529	33.529	5.365	33.529	33.529	4.393
2	1.947	12.171	45.700	1.947	12.171	45.700	3.102
3	1.432	8.951	54.651	1.432	8.951	54.651	1.656
4	1.260	7.876	62.527	1.260	7.876	62.527	2.821
5	.898	5.609	68.137				
6	.750	4.685	72.822				
7	.673	4.203	77.025				
8	.638	3.988	81.013				
9	.588	3.674	84.687				
10	.537	3.357	88.044				
11	.459	2.866	90.910				
12	.373	2.329	93.239				
13	.341	2.129	95.367				

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

14	.278	1.734	97.102	
15	.248	1.552	98.654	
16	.215	1.346	100.000	

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



**Pattern Matrix<sup>a</sup>**

	Component			
	1	2	3	4
Do you feel frustrated with others because of issues related to a shop/enterprise policy?	.699			

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Do others block you from attaining your objectives because of differences in workplace power?	.699		
Do you feel anxious due to the actions of someone with more workplace power?	.684	.437	
Does someone make your life more difficult over work-related issue that does not pertain to a specific work task?	.667		
Do you make someone's life more difficult over work-related issue that does not pertain to a specific work duty?	.654		
Do you disagree with someone about hiring decisions in your workplace?	.507		
Do you disagree with someone over work-related issues that do not pertain to a specific work task?	.464	-.429	
Do you feel tense because others in your workplace do not value your work?	.407		
Are you in a disagreement with someone at work because of a shop/enterprise rule?		-.842	
Are you in a quarrelling situation with someone at work caused by differences in workplace control?		-.837	
Do you feel mad due to conflicts over organizational changes?			.887
Do you feel frustrated with others because of issues related to workers employment?		-.496	.536
Do you block others from attaining their objectives because of differences in workplace influence?			.849
Do you delay someone's work because your workplace procedure allows you to?			.838
Do others delay your work because the workplace procedure allows them to?			.571

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Do you dispute with someone at work because of poor workplace leadership?

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 23 iterations.

### Structure Matrix

	Component			
	1	2	3	4
Does someone make your life more difficult over work-related issue that does not pertain to a specific work task?	.735			
Do others block you from attaining your objectives because of differences in workplace power?	.701			
Do you make someone's life more difficult over work-related issue that does not pertain to a specific work duty?	.696	-.412		
Do you feel frustrated with others because of issues related to a shop/enterprise policy?	.685			
Do you feel anxious due to the actions of someone with more workplace power?	.638		.421	
Do you disagree with someone over work-related issues that do not pertain to a specific work task?	.625	-.581		
Do you disagree with someone about hiring decisions in your workplace?	.610			.492
Do you dispute with someone at work because of poor workplace leadership?	.592	-.515		.542
Do you feel tense because others in your workplace do not value your work?	.499		.445	
Are you in a disagreement with someone at work because of a shop/enterprise rule?		-.864		

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Are you in a quarrelling situation with someone at work caused by differences in workplace control?					
Do you feel mad due to conflicts over organizational changes?				.882	
Do you feel frustrated with others because of issues related to workers employment?				.575	
Do you delay someone's work because your workplace procedure allows you to?					.870
Do you block others from attaining their objectives because of differences in workplace influence?					.781
Do others delay your work because the workplace procedure allows them to?	.424				.655

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

### Component Correlation Matrix

Component	1	2	3	4
1	1.000	-.303	.134	.300
2	-.303	1.000	-.043	-.108
3	.134	-.043	1.000	.010
4	.300	-.108	.010	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

### Hostile Work Environment Exploratory Factor Analysis Output

#### Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Made derogatory comments about your ethnicity?	1.57	.979	318
Told jokes about your ethnic group?	1.84	1.023	318
Used ethnic insults to describe you?	1.76	1.188	318
Excluded you from social interactions during or after work because of your ethnicity?	1.63	1.051	318

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Failed to give you information you need to do your job because of your ethnicity?	1.46	.808	318
Made ethnic comments (for example, said people of your ethnicity aren't very smart or can't do the job)?	1.63	.944	318
Made offensive sexist remarks?	1.49	.832	318
Put you down or was arrogant to you because of your sex?	1.50	.908	318
Displayed, used, or distributed sexist or suggestive materials?	1.55	.990	318
Treated you "differently" because of your sex?	1.51	.939	318
Repeatedly told sexual stories or jokes that were offensive to you?	1.41	.768	318
Made offensive remarks about your appearance, body, or sexual activities?	1.50	.891	318
Made unwelcome attempts to draw you into a discussion of sexual matters?	1.46	.914	318
Made gestures or used body language of a sexual nature which embarrassed or offended you?	1.39	.832	318
Made offensive religious remarks?	1.61	.963	318
Put you down or was arrogant to you because of your religion?	1.46	.784	318
Displayed, used, or distributed offensive religious materials?	1.52	.858	318
Treated you "differently" because of your religion?	1.66	.929	318
Repeatedly told religious jokes that were offensive to you?	1.61	.985	318
Ridicules me	1.53	.904	318
Tells me my thoughts or feelings are stupid	1.54	.897	318
Gives me the silent treatment	1.67	.973	318
Puts me down in front of others	1.70	1.084	318
Invades my privacy	1.69	1.046	318
Reminds me of my past mistakes and failures	2.09	1.201	318
Doesn't give me praise for jobs requiring a lot of effort	1.73	1.185	318
Blames me to save himself/herself from embarrassment	1.62	.945	318

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Breaks promises he/she makes	2.00	1.163	318
Expresses anger at me when he/she is mad for another reason	2.08	1.068	318
Makes negative comments about me to others	1.77	1.039	318
Is rude to me	1.66	.945	318
Does not allow me to interact with my co-workers	1.68	1.096	318
Tells me I'm incompetent	1.72	1.084	318
Lies to me	1.82	1.192	318

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.841
Bartlett's Test of Sphericity	Approx. Chi-Square	5683.314
	df	561
	Sig.	.000

**Total Variance Explained**

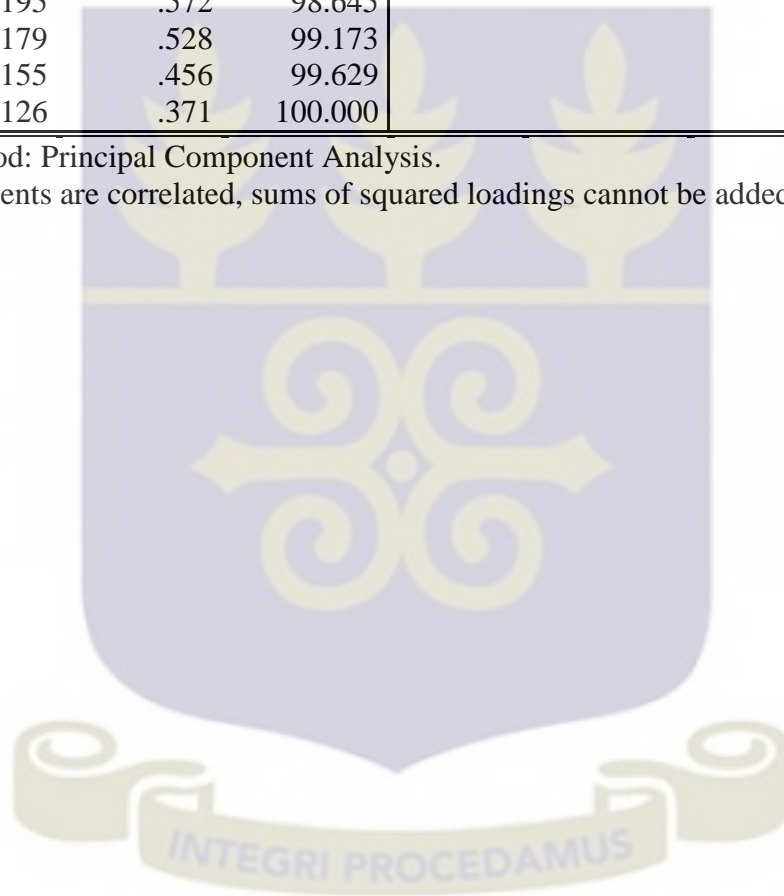
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.622	28.300	28.300	9.622	28.300	28.300	7.238
2	2.936	8.637	36.937	2.936	8.637	36.937	4.048
3	2.358	6.934	43.871	2.358	6.934	43.871	3.125
4	2.037	5.991	49.862	2.037	5.991	49.862	6.955
5	1.536	4.516	54.378				
6	1.387	4.079	58.457				
7	1.236	3.636	62.093				
8	1.119	3.291	65.384				
9	1.053	3.096	68.480				
10	.972	2.858	71.338				
11	.825	2.425	73.763				
12	.784	2.305	76.069				
13	.699	2.057	78.125				
14	.671	1.975	80.100				
15	.626	1.842	81.942				
16	.575	1.690	83.632				
17	.529	1.556	85.189				
18	.501	1.475	86.664				
19	.427	1.255	87.919				

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

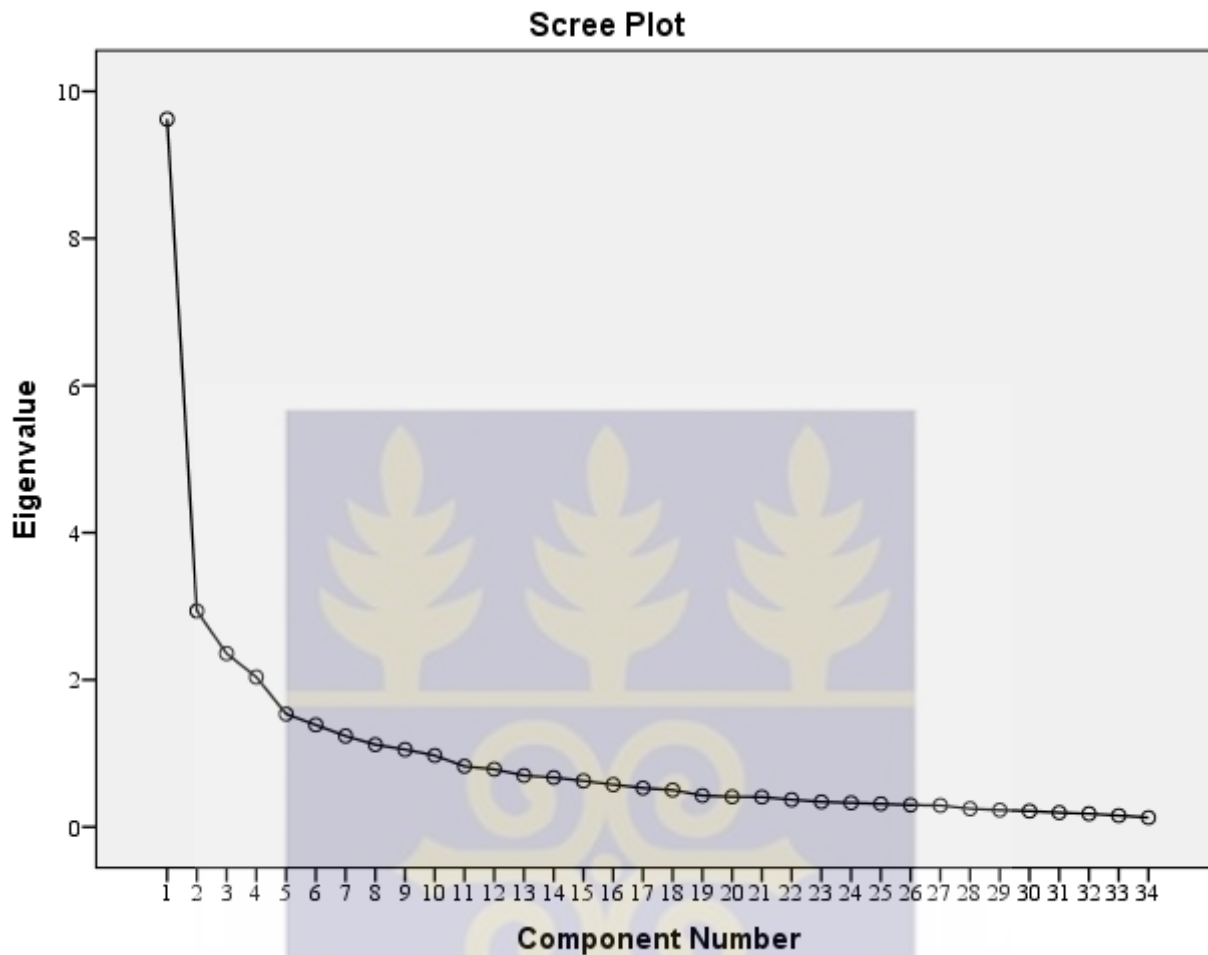
20	.410	1.205	89.124
21	.406	1.195	90.318
22	.371	1.090	91.408
23	.341	1.002	92.410
24	.327	.962	93.372
25	.314	.924	94.296
26	.297	.875	95.171
27	.292	.860	96.031
28	.248	.729	96.760
29	.230	.676	97.436
30	.217	.637	98.073
31	.195	.572	98.645
32	.179	.528	99.173
33	.155	.456	99.629
34	.126	.371	100.000

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour



**Pattern Matrix<sup>a</sup>**

	Component			
	1	2	3	4
Treated you “differently” because of your religion?	.762			
Ridicules me	.709			
Puts me down in front of others	.701			
Repeatedly told religious jokes that were offensive to you?	.692			
Invades my privacy	.650			
Excluded you from social interactions during or after work because of your ethnicity?	.598			

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Displayed, used, or distributed offensive religious materials?	.547	
Reminds me of my past mistakes and failures	.525	
Gives me the silent treatment	.442	
Tells me my thoughts or feelings are stupid	.420	
Does not allow me to interact with my co-workers	.409	
Doesn't give me praise for jobs requiring a lot of effort	.829	
Expresses anger at me when he/she is mad for another reason	.736	
Makes negative comments about me to others	.719	
Breaks promises he/she makes	.671	
Blames me to save himself/herself from embarrassment	.634	
Lies to me	.543	
Made derogatory comments about your ethnicity?		.695
Told jokes about your ethnic group?		.653
Used ethnic insults to describe you?	.441	.635
Treated you "differently" because of your sex?		.536
Displayed, used, or distributed sexist or suggestive materials?		.466
Repeatedly told sexual stories or jokes that were offensive to you?		-.800
Made gestures or used body language of a sexual nature which embarrassed or offended you?		-.698
Made offensive sexist remarks?		-.646
Made ethnic comments (for example, said people of your ethnicity aren't very smart or can't do the job)?		-.636
Failed to give you information you need to do your job because of your ethnicity?		-.582
Made offensive remarks about your appearance, body, or sexual activities?		-.562

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Tells me I'm incompetent	-.548
Put you down or was arrogant to you because of your sex?	-.547
Put you down or was arrogant to you because of your religion?	-.528
Made offensive religious remarks?	-.463
Made unwelcome attempts to draw you into a discussion of sexual matters?	-.405
Is rude to me	

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 20 iterations.

### Structure Matrix

	Component			
	1	2	3	4
Treated you "differently" because of your religion?	.798			
Repeatedly told religious jokes that were offensive to you?	.726			
Ridicules me	.720			
Puts me down in front of others	.695			
Invades my privacy	.650			
Displayed, used, or distributed offensive religious materials?	.641			-.468
Excluded you from social interactions during or after work because of your ethnicity?	.604			
Tells me my thoughts or feelings are stupid	.539			-.458
Gives me the silent treatment	.537			
Does not allow me to interact with my co-workers	.518			-.472
Reminds me of my past mistakes and failures	.509			
Doesn't give me praise for jobs requiring a lot of effort		.785		
Makes negative comments about me to others		.755		
Expresses anger at me when he/she is mad for another reason		.737		
Breaks promises he/she makes		.690		

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Blames me to save himself/herself from embarrassment	.652	
Lies to me	.593	
Made derogatory comments about your ethnicity?		.724
Told jokes about your ethnic group?		.681
Used ethnic insults to describe you?	.473	.681
Treated you “differently” because of your sex?	.418	.575
Displayed, used, or distributed sexist or suggestive materials?	.493	.525
Repeatedly told sexual stories or jokes that were offensive to you?		-.761
Made gestures or used body language of a sexual nature which embarrassed or offended you?	.442	-.745
Made ethnic comments (for example, said people of your ethnicity aren’t very smart or can’t do the job)?		-.677
Made offensive sexist remarks?		-.651
Put you down or was arrogant to you because of your religion?	.531	-.647
Failed to give you information you need to do your job because of your ethnicity?		-.626
Tells me I’m incompetent		-.622
Made offensive remarks about your appearance, body, or sexual activities?		-.620
Put you down or was arrogant to you because of your sex?		-.615
Made offensive religious remarks?	.536	-.583
Is rude to me	.525	-.542
Made unwelcome attempts to draw you into a discussion of sexual matters?	.470	-.496

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

### Component Correlation Matrix

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Component	1	2	3	4
1	1.000	.167	.131	-.415
2	.167	1.000	.072	-.248
3	.131	.072	1.000	-.102
4	-.415	-.248	-.102	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

**EXPLORATORY FACTOR ANALYSIS OF COUNTERPRODUCTIVE WORK  
BEHAVIOUR**

**Descriptive Statistics**

	Mean	Std. Deviation	Analysis N
Help another person or advise them how to take shops property or merchandise.	1.74	1.185	318
Take cash or property belonging to the shop owner.	1.61	.918	318
Misuse business expense account	1.55	.849	318
Take cash or property belonging to a co-worker.	1.61	.866	318
Take office supplies from the enterprise.	1.64	.901	318
Take petty cash from the enterprise.	1.72	.992	318
Take cash or property belonging to a customer.	1.59	.914	318
Give away goods or services for free.	1.80	1.064	318
Provide goods or services at less than the price established by the shop owner.	1.86	1.133	318
Misuse employee discount privileges.	1.76	.933	318
Deface, damage, or destroy property, belonging to a co-worker.	1.60	.844	318
Deface, damage, or destroy property, belonging to a customer.	1.55	.796	318
Deface, damage, or destroy property, equipment, or product belonging to the shop/enterprise.	1.65	.830	318

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Conduct personal business during work time	1.94	1.037	318
Spend long time chatting on social media (whatsapp, viber, facebook) on phone for reasons not related to work	2.24	1.293	318
Take a long break without approval.	2.14	1.176	318
Waste too much time on one work just avoid given more work	2.01	1.074	318
Use shops resources you aren't permitted to use.	1.94	1.015	318
Make long personal calls to the neglect of attending to customers at work.	1.74	.931	318
Endanger yourself by not following safety procedures.	1.84	.970	318
Endanger co-workers by not following safety procedures.	1.78	1.089	318
Endanger customers by not following safety procedures.	1.50	.858	318
Fail to read the manual outlining safety procedures	1.68	.955	318
Argue or fight with a co-worker	1.69	.907	318
Yell or shout on the job.	1.75	.962	318
Verbally abuse a customer.	1.68	.926	318
Verbally abuse a co-worker.	1.71	.975	318
Verbally abuse a supervisor.	1.62	.903	318
Use sexually open language in the workplace.	1.63	.953	318
Argue or fight with a supervisor.	1.58	.880	318
Argue or fight with a customer.	1.62	.890	318
Be absent from work without a legitimate excuse	1.92	1.078	318
Intentionally come to work late	1.93	1.065	318
Use sick leave when not really sick	1.92	1.058	318
Leave work early without permission	1.99	1.071	318
Miss work without calling in	2.04	1.233	318

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.890
Bartlett's Test of Sphericity	Approx. Chi-Square	6781.202
	df	630
	Sig.	.000

**Total Variance Explained**

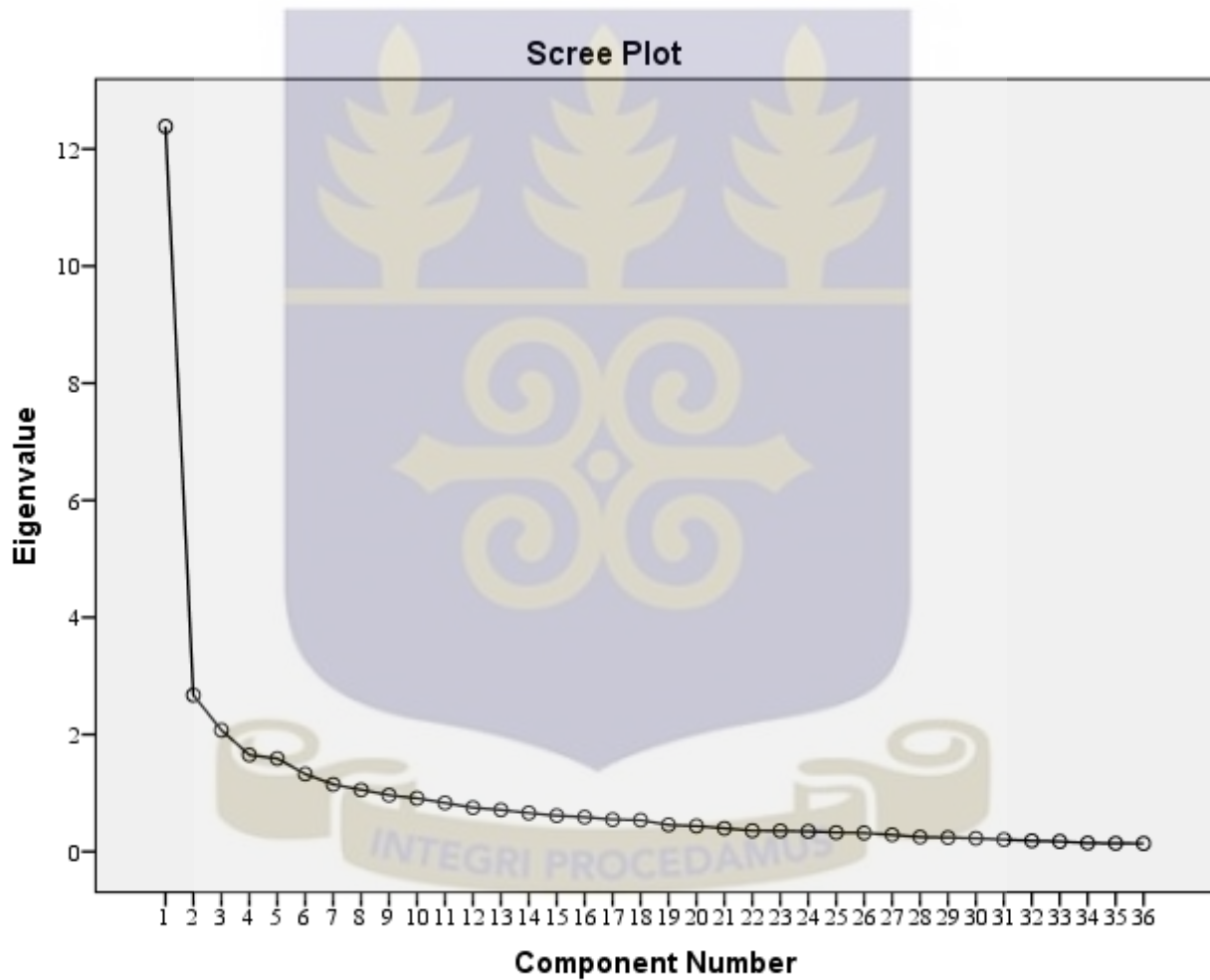
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	12.385	34.404	34.404	12.385	34.404	34.404	8.177
2	2.673	7.425	41.829	2.673	7.425	41.829	8.014
3	2.073	5.759	47.588	2.073	5.759	47.588	6.165
4	1.651	4.586	52.173	1.651	4.586	52.173	5.241
5	1.590	4.418	56.591	1.590	4.418	56.591	4.784
6	1.326	3.683	60.274	1.326	3.683	60.274	1.553
7	1.147	3.187	63.461				
8	1.055	2.930	66.391				
9	.963	2.675	69.066				
10	.911	2.530	71.596				
11	.833	2.313	73.909				
12	.751	2.087	75.996				
13	.713	1.981	77.977				
14	.659	1.830	79.806				
15	.614	1.704	81.511				
16	.588	1.633	83.144				
17	.548	1.521	84.665				
18	.536	1.490	86.155				
19	.456	1.267	87.422				
20	.437	1.215	88.637				
21	.398	1.105	89.742				
22	.357	.993	90.735				
23	.355	.987	91.722				
24	.345	.958	92.680				
25	.326	.906	93.586				
26	.318	.883	94.469				
27	.288	.799	95.268				
28	.247	.686	95.954				
29	.239	.664	96.618				

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

30	.227	.631	97.249		
31	.206	.571	97.820		
32	.185	.513	98.334		
33	.173	.481	98.814		
34	.146	.405	99.219		
35	.142	.395	99.615		
36	.139	.385	100.000		

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



**Pattern Matrix<sup>a</sup>**

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	Component
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## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

	1	2	3	4	5	6
Verbally abuse a supervisor.	.837					
Verbally abuse a co-worker.	.836					
Verbally abuse a customer.	.748					
Yell or shout on the job.	.700					
Argue or fight with a supervisor.	.587					
Use sexually open language in the workplace.	.554					
Argue or fight with a co-worker	.530					
Give away goods or services for free.		.780				
Take office supplies from the enterprise.		.754				
Take cash or property belonging to the shop owner.		.709				
Take cash or property belonging to a customer.		.682				
Take petty cash from the enterprise.		.603				
Provide goods or services at less than the price established by the shop owner.		.590				
Help another person or advise them how to take shops property or merchandise.		.561				
Take cash or property belonging to a co-worker.		.559				
Misuse business expense account		.519				
Intentionally come to work late			.875			
Be absent from work without a legitimate excuse			.741			

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Miss work without calling in	.689	
Leave work early without permission	.618	
Use sick leave when not really sick	.603	
Use shops resources you aren't permitted to use.	.427	
Misuse employee discount privileges.	.623	
Endanger co-workers by not following safety procedures.	.596	
Deface, damage, or destroy property, belonging to a customer.	.572	.487
Deface, damage, or destroy property, belonging to a co-worker.	.568	
Deface, damage, or destroy property, equipment, or product belonging to the shop/enterprise.	.546	
Conduct personal business during work time	.514	-.415
Endanger yourself by not following safety procedures.		
Endanger customers by not following safety procedures.		.782
Fail to read the manual outlining safety procedures		.684
Waste too much time on one work just avoid given more work		.567

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Spend long time chatting on social media (whatsapp, viber, facebook) on phone for reasons not related to work		.423	
Make long personal calls to the neglect of attending to customers at work.			
Argue or fight with a customer.	.410		.583
Take a long break without approval.			-.431

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 25 iterations.

### Structure Matrix

	Component					
	1	2	3	4	5	6
Verbally abuse a co-worker.	.830					
Verbally abuse a supervisor.	.824					
Verbally abuse a customer.	.815					
Yell or shout on the job.	.760					
Use sexually open language in the workplace.	.699	.490			.435	
Argue or fight with a co-worker	.686				.442	
Argue or fight with a supervisor.	.646		.431			
Take a long break without approval.	.515		.497		.491	-.479

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Take cash or property belonging to the shop owner.		.792		.425
Take office supplies from the enterprise.	.404	.781		
Give away goods or services for free.		.768		
Take cash or property belonging to a customer.		.751		
Take cash or property belonging to a co-worker.	.439	.713		.524
Provide goods or services at less than the price established by the shop owner.	.468	.677		
Take petty cash from the enterprise.		.614		
Misuse business expense account		.583		
Help another person or advise them how to take shops property or merchandise.		.549		
Intentionally come to work late			.842	
Be absent from work without a legitimate excuse		.416	.786	
Miss work without calling in			.715	
Leave work early without permission	.406		.679	.469
Use sick leave when not really sick			.657	
Use shops resources you aren't permitted to use.	.436	.485	.610	

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Endanger co-workers by not following safety procedures.		.411		.685	
Misuse employee discount privileges.				.683	
Deface, damage, or destroy property, belonging to a co-worker.	.424	.411		.680	.429
Deface, damage, or destroy property, equipment, or product belonging to the shop/enterprise.		.461		.668	
Deface, damage, or destroy property, belonging to a customer.				.663	.585
Conduct personal business during work time				.574	-.416
Endanger yourself by not following safety procedures.	.450	.409		.496	.407
Endanger customers by not following safety procedures.					.805
Fail to read the manual outlining safety procedures	.421				.773
Waste too much time on one work just avoid given more work	.455	.423	.548		.693
Make long personal calls to the neglect of attending to customers at work.	.500	.509	.408		.532

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Spend long time chatting on social media (whatsapp, viber, facebook) on phone for reasons not related to work		.457		.518	
Argue or fight with a customer.	.515		.460		.539

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

### Component Correlation Matrix

Component	1	2	3	4	5	6
1	1.000	.392	.404	.287	.309	-.073
2	.392	1.000	.307	.366	.228	.052
3	.404	.307	1.000	.173	.217	-.112
4	.287	.366	.173	1.000	.154	-.013
5	.309	.228	.217	.154	1.000	-.005
6	-.073	.052	-.112	-.013	-.005	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.



## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**APPENDIX E: HYPOTHESES TESTING***Hypothesis One***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	.335 <sup>a</sup>	.112	.089	19.571	.112	4.883	8	309	.000
2	.373 <sup>b</sup>	.139	.114	19.306	.027	9.552	1	308	.002
3	.605 <sup>c</sup>	.366	.345	16.598	.227	109.699	1	307	.000

a. Predictors: (Constant), AgeRes, Rel, ETHR, MS, EDNR, SexRes, RELRES, Tenure

b. Predictors: (Constant), AgeRes, Rel, ETHR, MS, EDNR, SexRes, RELRES, Tenure, Interpersonal Conflict

c. Predictors: (Constant), AgeRes, Rel, ETHR, MS, EDNR, SexRes, RELRES, Tenure, Interpersonal Conflict, Hostile work environment

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14961.435	8	1870.179	4.883	.000 <sup>b</sup>
	Residual	118354.543	309	383.024		
	Total	133315.978	317			
2	Regression	18521.689	9	2057.965	5.522	.000 <sup>c</sup>
	Residual	114794.289	308	372.709		
	Total	133315.978	317			
3	Regression	48742.144	10	4874.214	17.693	.000 <sup>d</sup>
	Residual	84573.834	307	275.485		
	Total	133315.978	317			

a. Dependent Variable: Counterproductive work behaviour

b. Predictors: (Constant), AgeRes, Rel, ETHR, MS, EDNR, SexRes, RELRES, Tenure

c. Predictors: (Constant), AgeRes, Rel, ETHR, MS, EDNR, SexRes, RELRES, Tenure, Interpersonal Conflict

d. Predictors: (Constant), AgeRes, Rel, ETHR, MS, EDNR, SexRes, RELRES, Tenure, Interpersonal Conflict, Hostile work environment

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error				Beta	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance
1 (Constant)	40.030	7.891		5.073	.000	24.503	55.557					
EDNR	.852	1.625	.029	.524	.600	2.346	4.049	.060	.030	.028	.935	1.070
ETHR	-.413	.940	-.025	-.440	.661	2.264	1.437	.045	-.025	-.024	.914	1.094
RELRES	4.764	1.804	.150	2.641	.009	1.215	8.314	.177	.149	.142	.894	1.118
Tenure	2.111	1.560	.082	1.353	.177	-.958	5.181	.193	.077	.073	.791	1.264
MS	2.019	1.851	-.060	1.091	.276	5.663	1.624	.086	-.062	.058	.950	1.052
Rel	-.708	2.813	-.014	-.252	.801	6.242	4.826	.019	-.014	-.013	.947	1.056
SexRes	.543	2.290	.013	.237	.813	3.963	5.048	.064	.013	.013	.934	1.071
AgeRes	.638	.169	.226	3.778	.000	.306	.970	.286	.210	.202	.801	1.249
2 (Constant)	28.959	8.569		3.380	.001	12.099	45.820					
EDNR	1.144	1.606	.039	.712	.477	2.016	4.304	.060	.041	.038	.931	1.074
ETHR	-.162	.931	-.010	-.174	.862	1.994	1.670	.045	-.010	-.009	.907	1.103
RELRES	4.138	1.791	.130	2.311	.022	.614	7.662	.177	.131	.122	.883	1.133

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Tenure	1.939	1.540	.075	1.259	.209	-1.091	4.969	.193	.072	.067	.790	1.265
MS	-1.991	1.826	-.059	1.090	.276	-5.585	1.603	-.086	-.062	-.058	.950	1.052
Rel	-2.186	2.815	-.043	-.776	.438	-7.726	3.354	-.019	-.044	-.041	.920	1.087
SexRes	1.883	2.300	.046	.819	.414	-2.643	6.408	-.064	.047	.043	.901	1.110
AgeRes	.680	.167	.241	4.067	.000	.351	1.009	.286	.226	.215	.795	1.257
Interpersonal Conflict	.377	.122	.171	3.091	.002	.137	.617	.161	.173	.163	.911	1.098
3 (Constant)	22.423	7.393		3.033	.003	7.875	36.971					
EDNR	1.096	1.381	.037	.794	.428	-1.621	3.812	.060	.045	.036	.931	1.074
ETHR	-.390	.801	-.023	-.487	.626	1.966	1.185	.045	-.028	-.022	.906	1.103
RELRES	1.868	1.555	.059	1.202	.230	-1.191	4.928	.177	.068	.055	.866	1.155
Tenure	.624	1.330	.024	.469	.639	1.993	3.241	.193	.027	.021	.783	1.277
MS	-1.780	1.570	-.053	1.134	.258	4.870	1.310	-.086	-.065	-.052	.950	1.052
Rel	-5.668	2.443	-.111	2.320	.021	10.476	-.860	.019	.131	.105	.903	1.108
SexRes	2.122	1.977	.051	1.073	.284	1.769	6.013	.064	.061	.049	.900	1.111
AgeRes	.329	.148	.117	2.227	.027	.038	.619	.286	.126	.101	.754	1.326

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Interpersonal Conflict	-.101	.114	-.046	-.885	.377	-.326	.124	.161	-.050	-.040	.765	1.306
Hostile work environment	.670	.064	.565	10.474	.000	.544	.796	.566	.513	.476	.710	1.408

a. Dependent Variable: Counterproductive work behaviour

**Hypothesis Two****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	.287 <sup>a</sup>	.082	.076	19.709	.082	14.101	2	315	.000
2	.548 <sup>b</sup>	.300	.293	17.239	.218	97.732	1	314	.000
3	.605 <sup>c</sup>	.366	.354	16.484	.066	10.803	3	311	.000

a. Predictors: (Constant), AgeRes, Rel

b. Predictors: (Constant), AgeRes, Rel, Gender harassment

c. Predictors: (Constant), AgeRes, Rel, Gender harassment, Ethnic discrimination, Abusive supervision, Religious harassment

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10954.908	2	5477.454	14.101	.000 <sup>b</sup>
	Residual	122361.070	315	388.448		
	Total	133315.978	317			
2	Regression	39999.513	3	13333.171	44.865	.000 <sup>c</sup>
	Residual	93316.464	314	297.186		
	Total	133315.978	317			
3	Regression	48806.162	6	8134.360	29.935	.000 <sup>d</sup>
	Residual	84509.816	311	271.736		
	Total	133315.978	317			

a. Dependent Variable: Counterproductive work behaviour

b. Predictors: (Constant), AgeRes, Rel

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

c. Predictors: (Constant), AgeRes, Rel, Gender harassment

d. Predictors: (Constant), AgeRes, Rel, Gender harassment, Ethnic discrimination, Abusive supervision, Religious harassment

## Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	43.715	4.607		9.488	.000	34.650	52.779
	Rel	-.723	2.757	-.014	-.262	.793	-6.147	4.702
	AgeRes	.807	.152	.286	5.299	.000	.507	1.106
2	(Constant)	29.087	4.293		6.776	.000	20.641	37.534
	Rel	-2.555	2.419	-.050	-1.056	.292	-7.313	2.204
	AgeRes	.423	.139	.150	3.051	.002	.150	.696
	Gender harassment	2.184	.221	.487	9.886	.000	1.750	2.619
3	(Constant)	21.621	4.314		5.012	.000	13.133	30.110
	Rel	-5.876	2.398	-.115	-2.451	.015	-10.594	-1.158
	AgeRes	.375	.134	.133	2.805	.005	.112	.638
	Gender harassment	1.248	.292	.278	4.275	.000	.673	1.822
	Abusive supervision	.608	.149	.256	4.081	.000	.315	.901
	Ethnic discrimination	.687	.284	.140	2.421	.016	.129	1.245
	Religious harassment	-.047	.382	-.008	-.123	.902	-.798	.704

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

**HYPOTHESES THREE****AGE AS A MODERATOR****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	.161 <sup>a</sup>	.026	.023	20.273	.026	8.388	1	316	.004
2	.333 <sup>b</sup>	.111	.105	19.400	.085	30.082	1	315	.000
3	.363 <sup>c</sup>	.132	.124	19.199	.021	7.623	1	314	.006

a. Predictors: (Constant), Interpersonal Conflict

b. Predictors: (Constant), Interpersonal Conflict , AgeRes

c. Predictors: (Constant), Interpersonal Conflict , AgeRes, CenteredAgeconflict

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3447.298	1	3447.298	8.388	.004 <sup>b</sup>
	Residual	129868.680	316	410.977		
	Total	133315.978	317			
2	Regression	14768.331	2	7384.165	19.621	.000 <sup>c</sup>
	Residual	118547.647	315	376.342		
	Total	133315.978	317			
3	Regression	17578.152	3	5859.384	15.897	.000 <sup>d</sup>
	Residual	115737.826	314	368.592		
	Total	133315.978	317			

a. Dependent Variable: Counterproductive work behaviour

b. Predictors: (Constant), Interpersonal Conflict

c. Predictors: (Constant), Interpersonal Conflict , AgeRes

d. Predictors: (Constant), Interpersonal Conflict , AgeRes, CenteredAgeconflict

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

COEFFICIENT						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	53.560	3.638		14.722	.000
	Interpersonal Conflict	.354	.122	.161	2.896	.004
2	(Constant)	32.178	5.227		6.156	.000
	Interpersonal Conflict	.374	.117	.170	3.194	.002
	AgeRes	.822	.150	.292	5.485	.000
3	(Constant)	26.026	5.632		4.621	.000
	Interpersonal Conflict	.472	.121	.214	3.894	.000
	AgeRes	.961	.157	.341	6.135	.000
	CenteredAgeconflict	.064	.023	.159	2.761	.006

*Moderation effect of Sex***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	.287 <sup>a</sup>	.082	.076	19.709	.082	14.101	2	315	.000
2	.337 <sup>b</sup>	.113	.102	19.432	.031	5.529	2	313	.004
3	.362 <sup>c</sup>	.131	.117	19.269	.018	6.300	1	312	.013

a. Predictors: (Constant), AgeRes, Rel

b. Predictors: (Constant), AgeRes, Rel, Interpersonal Conflict , DummySex

c. Predictors: (Constant), AgeRes, Rel, Interpersonal Conflict , DummySex, centredconflictsex

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10954.908	2	5477.454	14.101	.000 <sup>b</sup>
	Residual	122361.070	315	388.448		
	Total	133315.978	317			
2	Regression	15130.647	4	3782.662	10.018	.000 <sup>c</sup>
	Residual	118185.331	313	377.589		
	Total	133315.978	317			
3	Regression	17469.798	5	3493.960	9.410	.000 <sup>d</sup>
	Residual	115846.180	312	371.302		

## Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Total 133315.978 317

a. Dependent Variable: Counterproductive work behaviour

b. Predictors: (Constant), AgeRes, Rel

c. Predictors: (Constant), AgeRes, Rel, Interpersonal Conflict , DummySex

d. Predictors: (Constant), AgeRes, Rel, Interpersonal Conflict , DummySex, centredconflictsex

## Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	43.715	4.607		9.488	.000	34.650	52.779
	Rel	-.723	2.757	-.014	-.262	.793	-6.147	4.702
	AgeRes	.807	.152	.286	5.299	.000	.507	1.106
2	(Constant)	33.520	5.492		6.104	.000	22.715	44.325
	Rel	-2.373	2.763	-.046	-.859	.391	-7.810	3.063
	AgeRes	.836	.153	.296	5.454	.000	.534	1.137
	DummySex	-1.138	2.284	-.028	-.498	.619	-5.631	3.356
	Interpersonal Conflict	.404	.122	.183	3.322	.001	.165	.643
3	(Constant)	22.830	6.913		3.302	.001	9.227	36.433
	Rel	-2.879	2.747	-.056	-1.048	.295	-8.285	2.527
	AgeRes	.816	.152	.289	5.360	.000	.516	1.115
	DummySex	-1.638	2.273	-.040	-.720	.472	-6.111	2.835
	Interpersonal Conflict	.843	.213	.383	3.966	.000	.425	1.262
	centredconflictsex	-.640	.255	-.237	-2.510	.013	-1.142	-.138

\*\*\*\*\*

Conditional effect of X on Y at values of the moderator(s):

DummySex	Effect	se	t	p	LLCI	ULCI
-.5629	.8435	.2739	3.0795	.0023	.3046	1.3824
.4371	.2033	.1638	1.2412	.2155	-.1190	.5255

Hostile Work Environment, Interpersonal Conflict and Counterproductive Work Behaviour

Values for quantitative moderators are the mean and plus/minus one SD from mean.

Values for dichotomous moderators are the two values of the moderator.

\*\*\*\*\*

Data for visualizing conditional effect of X on Y

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

DATA LIST FREE/Total Conflict DummySex CWB.

BEGIN DATA.

-9.3145	-.5629	57.1835
.0000	-.5629	65.0401
9.3145	-.5629	72.8968
-9.3145	.4371	61.5085
.0000	.4371	63.4019
9.3145	.4371	65.2953

