

**UNIVERSITY OF GHANA**

**COLLEGE OF HUMANITIES**

**WORKPLACE INCIVILITY, ETHICAL LEADERSHIP AND OCCUPATIONAL SAFETY: A  
STUDY OF MANUFACTURING WORKERS IN ACCRA**

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**JULY 2019**

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**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL  
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## DECLARATION

I hereby declare that this thesis is the result of my own research and has not been presented either in whole or in part to any institution for the award of any degree. All references used in this thesis have been fully acknowledged. I bear sole responsibility for any shortcoming in the work.

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## **DEDICATION**

I dedicate this work to the Nkansah-Sarkodie family for the immense support and care.

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## **LIST OF ABBREVIATIONS**

AGI	Association of Ghana Industries
DCPP	Disease Control Priorities Project
EFA	Exploratory Factor Analysis
ELS	Ethical Leadership Scale
GSS	Ghana Statistical Service
ILO	International Labour Organisation
PCA	Principal Component Analysis
SET	Social Exchange Theory
SLT	Social Learning Theory
WHO	World Health Organisation
WIS	Workplace Incivility Scale

## **ABSTRACT**

*The study examined the relationships between workplace incivility, ethical leadership and occupational safety among manufacturing workers in Ghana. The moderating effect of ethical leadership in the relationship between workplace incivility and safety behaviour was assessed. The study also examined the mediating role of safety climate in the relationship between workplace incivility and safety behaviour. Using a cross-sectional survey design, data was collected from roofing and aluminium processing companies in Accra. A sample of 173 manufacturing workers was conveniently drawn for the study. A structured questionnaire measuring workplace incivility (co-worker and supervisor), ethical leadership, safety climate and safety behaviour was administered. The results from the multiple regression analysis indicated a significant negative relationship between experienced incivility (co-worker incivility and supervisor incivility) and safety behaviour. Also co-worker incivility was the stronger predictor of safety behaviour compared to supervisor incivility. Ethical leadership moderated the relationship between workplace incivility and safety behaviour. Also safety climate partially mediated the relationship between workplace incivility and safety behaviour. The findings are discussed together with implication for the manufacturing sector.*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

Most workers on the average spend one-third to half of their time at the workplace or undertaking work-related activities (Rutledge, 2005). On a regular basis most workers contend with mundane work-related issues and behaviours. Pertinent among these issues are those related the health, safety and wellbeing of employees at the workplace. Occupational safety is unabatedly one of the biggest apprehensions for organisations because of its substantial direct and indirect cost implications (Neal & Griffin, 2006).

The cost of occupational accidents, unsafe behaviours and injuries is well documented and presents a major source of worry for organisations and workers alike (Alli, 2008). Millions of employees sustain debilitating injuries and thousands of lives are lost at the workplace every year (Christian, Bradley, Wallace, Burke, 2009). The most recent estimates from the International Labour Organisation (ILO) indicate that annually, about 2.78 million occupational fatalities occur across the globe. The number of non-fatal work-related injuries was estimated to be 374 million leading to at least 4 days absence (Hämäläinen, Takala, & Kiat, 2017; ILO, 2017). Disturbing figures indicate a high fatality rate of 17.39 per 100,000 persons in the labour force in Africa compared to 3.02 per 100,000 in Europe (Hämäläinen et al., 2017). This possibly does not provide a foolproof account as in most developing countries data for estimating injuries is underestimated or not available (DCPP, 2007).

Aside human casualties there are economic and social repercussions. Indirect cost of occupational accidents and unsafe behaviours has been found to be two to three times the direct cost (ILO, 2003, 2014). Estimates by the World Health Organization (WHO) and ILO suggest that work-related accidents, occupational diseases and death account for economic losses in the range of 4-6 percent of global Gross Domestic Product (GDP) annually (WHO

2014, ILO 2014). Accidents cost developing nations nearly 7% of their GDP (Adei & Kunfaa, 2007). These losses cannot be afforded in the midst of fast political changes, economic challenges and rising new dangers at our workplaces (ILO, 2013). The safety of all workers is an essential issue in organisations especially those in high risk occupations and thus everyone deserves the right to decent and safe working environments. Given the immensity of these figures, researchers have made greater exertions to examining the accident process so as to structure relevant safety measures and intervention, and obtain elevated levels of occupational safety and health among workers (Gyekye, Salminen & Ojajarvi, 2012).

Over the past decades research on the perception of safety and the safety behaviours of employees has emerged as a very important area in safety research. Researchers have identified the incidence, patterns, and trends in occupational safety. One of such is the concept of safety culture which is the beliefs and values held in organizations regarding employee safety, hazard reduction, and a safe work environment (Cox & Flin, 1998). Thus safety culture which encapsulates the overall culture in organizations is the commitment to an organisation's safety programmes by employees, supervisors, managers, leaders and management. These values are stable, meaning they do not fluctuate in the short term (Cox & Flin, 1998). Additionally many efforts to account for workplace safety have conventionally highlighted accident proneness, personality, ergonomic design of equipment, and external regulatory systems (Barling, Kelloway & Iverson, 2003). However, towards the later years of the 20<sup>th</sup> century and ongoing there has been a substantial upturn in leadership and organizational climate studies (Hoffman, Burke & Zohar, 2017).

Consequently, there is an increase attention on work situations and management practices as predictors of safety at work (Barling et al., 2003; Cox & Cheyne, 2000; Hayes, Perander, Smecko & Trask, 1998). Scholars have paid particular attention to the concept of

safety climate which is the aggregate of employees' shared perceptions of the policies, measures, and practices related to safety at the workplace (Huang, Ho, Smith & Chen, 2006; Zohar, 1980). Essentially, safety climate has a significant influence on workers' safety performance and injuries on the job (Christian, et al., 2009).

Safety efforts and safety improvement of various kinds have led to decreasing trends in accidents among some high risk industries such as the manufacturing sector (Reniers, 2017). Despite the progress and contribution of safety research over the years, it has been argued that less consideration has been given to contextual factors related to the safety of workers (McGonagle, Walsh, Kath, & Morrow, 2014). The role of organisational relationships (Lee & Yu, 2011) and important workplace social construct such as workplace incivility has been linked organisational climate and safety outcomes (Zohar, 2010).

Incivility is a form of counterproductive behaviour and is made up of behaviours and actions that go against the norms and culture of organisations. According to Anderson and Pearson (1999), workplace incivility is characterized by behaviours that demonstrate impudence for other people at work. Incivility as a construct is defined as "low-intensity deviant behaviours with ambiguous intent to harm the target, in violation of workplace norms for mutual respect" (Andersson & Pearson, 1999; p. 457). It alludes to broad inconsiderate and insolent treatment at the workplace. Instances of low intensity behaviours include refusing to work collaboratively, snubbing or vocally belittling co-workers while ambiguity of intent refers to the lack of ability of the victim, onlookers, or instigator to ascertain whether there was an intention to cause harm (Andersson & Pearson, 1999; Cortina, Magley, Williams, & Langhout, 2001). Not listening, ignoring or passing disparaging remarks about someone can also be classified as acts of incivility. Incivility can likewise include disregarding or making belittling remarks about somebody (Lim, 2008). Workplace incivility

is ubiquitous in nature and is estimated that 98 percent of workers experience such conducts (Porath & Pearson, 2013)

Even though incivility is considered counterproductive and an exhibition of professional misconduct and impropriety at the workplace it could be separated from other forms of inappropriate aggressive behaviour on the basis on intention to cause harm and intensity of behaviour. Thus, incivility is less severe than bullying and homicide for example (Namie, 2003). Workplace incivility is prevalent at the workplace. Research suggests occurrences of incivility at work are rising (Pearson & Porath, 2009). These incidences are rampant and permeate various areas at the workplace due to its low intensity and inert nature. For example, research have found that a majority of the aggression reported by employees' is indicative of experiences that can be described as verbal, passive, and indirect in nature. These incidences occur at a high rate (Baron & Neuman, 1996). Likewise, research has shown that verbal hostility happens as often as possible without notice by management as they usually go unreported (Pearson, Andersson, & Porath, 2000).

Lack of civility is a silent killer. It has the impetus of affecting workplace happiness, productivity and health. As a result, an increased rate of incivility requires careful consideration due to the overall impact and implication it spells out at the workplace. Furthermore incivility, amongst other forms counterproductive behaviours, reveals the social culture eminent at the workplace and not only the flaws of people (Leiter, Day & Price, 2015).An emergent body of research have been undertaken on workplace incivility and its effect on organisational outcomes, but relatively few have been done to assess how to prevent the issue. It has been suggested that leadership has an impact on both civility and safety climate (McGonagle, Walsh, Kath& Morrow, 2014).

Consequently, positive leader behaviours have been demonstrated to play vital roles in enhancing safety at the workplace (Christian et al., 2009, Nahrgang, Morgeson, Hofmann 2011). Positive leader behaviour can help in explaining the role of leadership with respect to the health and safety practices of workers. Positive leader behaviours such as ethical leadership require additional attention as it has been reasoned that subordinates' perceptions of ethical leadership are related with positive outcomes of followers (Brown & Trevino, 2006). Ethical leadership is thus an antecedent of safety behaviour and is likewise related to respectful treatment (Chughtai, 2015).

Ethical leadership is defined as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement and decision-making” (Brown, Trevino & Harrison, 2005; p. 120). This description suggests that ethical leaders' behaviours serve as role-modelling behaviour for subordinates because their conduct is recognised as reasonable and acceptable. In the same breath ethical leaders transmit and justify the decisions and actions they take to subordinates (Bass & Steidlmeier, 1999). Such leaders aspire to persistently operate in accordance to ethical dictates in the organisation by laying down ethical standards and enforcing them through rewards and punishment (Minkes, Small & Chatterjee, 1999). They integrate ethical consideration when taking decisions. Ethical leaders take into account the ethical ramifications of their actions and most importantly aim to settle on acceptable decisions. Ethical leadership is therefore placed among positive leadership behaviours (Brown & Trevino, 2006).

The attention of managers and scholars in the contemporary years has focused on ethics management (Trevino & Brown, 2005). Ethical leadership elicits desired outcomes for subordinates and organizations which are manifested in perceived leaders' effectiveness, job satisfaction and higher commitment and reporting of problems (Brown et al., 2005). The

standards necessary for assessing ethical leadership behaviour include individual values, types of influence used, freedom of choice, conscious intentions, stage of moral development, and application of ethical and unethical behaviour (Yukl, 2006). Leaders are the prime influencers of ethical behaviour in organisations (Hitt, 1990). It is therefore their duty to establish codes of conducts that regulate the behaviour of employees at work (Bennis & Nanus, 1985).

If safety culture or ethics of organizations are accurately assessed it can guide the future prediction of the effect of safety outcome. As a result, it affords the opportunity to plan cost effective safety policies and interventions (Freiwald, 2013). Organisations with occupational safety and health and management systems (OSH-MS) produce better records in terms of safety and productivity compared to organisations that lack such systems.

## **1.2 Statement of the Problem**

Unlike developed countries where tremendous progress have been made in enhancing the safety and health of workers by lessening the problem of work-related injuries-, developing countries and transition economies are saddled with high injuries and illness risks at work (Takala, Hämäläinen, Nenonen, Takahashi, Chimed-Ochir, & Rantanen, 2017). Africa is the second highest contributor of global work-related mortality (Hämäläinen et al., 2017; ILO, 2017) and Ghana is not an exception.

According to ILO modelled estimates Africa is the only region where the labour force participation rate is anticipated to rise in the upcoming years (ILO, 2018; ILOSTAT, 2018). Most of this labour will end up in the manufacturing sector with the increasing drive and trend towards industrialisation. This rise is the most notable for Africa with a projected growth of 8 percent (from 10% to 18%) of the world's labour force between 1990 and 2030.

This therefore reflects an upswing from the fourth to the second largest region in terms of global workforce (ILO, 2018).

The industrial sector in Ghana is steadily progressing and this is evidenced in the growth and expansion of the industrial sector. The government of Ghana currently intend to roll out a massive and ambitious policy initiative of building one factory in every district in the country under the one district one factory (1D-1F) program. The objective is to grow Ghana beyond aid and aim towards industrialization albeit in collaboration with some private sector engagement (Baafi, 2017). The expansion of the industrial sector exposes a great number of employees to numerous workplace health and safety related hazards (Asumeng, Asamani, Afful & Agyemang, 2015).

However, the health and wellbeing of workers in the country especially industrial workers is still a major cause of concern. The Labour Department (LD) for instance reported a total of 29, 277 cases over a 9-year period (from 2000 to 2008) while the Department of Factories Inspectorate (DFI) was notified of 5, 808 cases over a 23-year period from 1985 to 2007 (Oppong, 2011). At present, contrary to the requirement of the ILO convention number 155 (1981), there is a lack of a well-integrated national occupational health and safety instrument to address issues of safety and wellbeing of workers in Ghana.

The manufacturing sector in Ghana continues to record high rate of accidents. Labour force survey (2015) reported 69,874 occupational injuries in the manufacturing industry in Ghana leading to an average of 14 days lost per injury. The manufacturing sector involves jobs that require physical labour and employees are also faced with realistic probability of injuries and other work-related safety issues. Workers in the manufacturing sector are exposed to occupational hazards, risks and injuries (Gyekye et al., 2012; Puplampu & Quartey, 2012). Also, the undertakings in the manufacturing industry suggest the sector has

not fully learned from previous accidents as it continuous to adopt reactive approaches and rather than proactive ones (Renier, 2017).

Again, some researchers report that these workers usually find themselves working in an unsafe environment and are mostly emotionally and physically exhausted (Amponsah-Tawiah & Mensah, 2016; Leung, Liang & Olomolaiye, 2016; Smith, Karsh, Carayon & Conway, 2003). Activities in the iron and steel processing industry for instance expose employees to various forms of risks and unsafe behaviours. Moreover, as a result of low capital, many manufacturing industries are unable to invest in modern and safe equipment (Rankin, Söderbom & Teal, 2006). Hence, manufacturing workers are vulnerable to safety related issues which may define the manner in which they conduct themselves and perceive safety at the workplace.

Nevertheless, the role of organisational relationship and its possible impact on safety among these employees have not been properly assessed. Organisational relationship defines employees' relationships with colleagues, supervisors and the organisation (Lee & Yu, 2011). This is despite the prevalence of deviant behaviours/incivility and its adverse effect on employees, (Amponsah-Tawiah, & Annor, 2017; Pearson & Porath, 2009; Ohemeng & Adu-Brobby, 2018) sparse studies have been conducted on how incivility can impact on the safety practices and behaviours of workers (McGonagle et al, 2014).

Furthermore, research on minor incivility behaviour has relatively seen less attention; preliminary studies indicate incivility has an impact on workers (Martin & Hine, 2005). A report by Porath and Pearson (2013) suggests as high as 98 percent of workers have experienced incivility, with 50 percent going through such demeanour at least every week at work. It is estimated that the monetary cost of experiencing incivility is \$14,000 per employee annually, as a result of delays in projects and cognitive disruption from work (Pearson & Porath, 2009). These figures are disturbing as they show the detrimental effect of

incivility on employees and organisations in which they work. Moreover, the human costs endured by workers who are exposed to incivility at work are quite serious. They may, for example be apprehensive, attempt to stay away from the instigator, pull back from work, and even take their dissatisfactions out on others at the work (Porath & Pearson, 2013).

Research has disclosed workplace incivility to be a mundane and costly problem for organisations, of which Ghanaian institution specifically manufacturing cannot be exempted. Empirical studies indicate a prevalence of deviant behaviours/incivility in Ghanaian organisations. (Amponsah-Tawiah, & Annor, 2017; Ohemeng & Adu- Brobbey, 2018) It costs organizations needless money (Keenan & Newton, 1985) and time (Gardner & Johnson, 2001). These are types of counterproductive behaviours at work that can negatively affect employees, customers and the organisations.

Despite the increasing rate of incivility at the workplace (Pearson & Porath, 2005), sparse studies have been conducted on how incivility can affect the safety practices and behaviours of workers (McGonagle et al, 2014). Research on workplace safety has centred on finding individual characteristics, such as personality traits or behaviours that are related with accident proneness (Neal & Griffin, 2006). There is the need to change this trend and find new insights into how workplace social constructs such incivility affect the safety behaviours of Ghanaian workers especially those in some high risk industries within the manufacturing sector. Also, there is constricted information of the effect of leadership styles on safety outcomes (Clarke, 2013). The interest in leadership has risen considerably but only a minute portion of the research has concentrate on leadership in a safety context and its prediction of workplace safety outcomes (Barling et al., 2003; Zohar, 2002).

### **1.3 Aims of the Study**

The aim of this study is to investigate the relationship between workplace incivility and safety behaviour among manufacturing workers. The study also seeks to explore the moderating effect of ethical leadership in this relationship. Specifically, the study seeks;

1. To examine the relationship between workplace incivility (co-worker and supervisor incivility) and safety behaviour.
2. To find out which of the sub-dimensions of incivility (co-worker and supervisor) will be a stronger predictor of safety behaviour.
3. To examine the moderating effect of ethical leadership on the relationship between workplace incivility and safety behaviour.
4. To examine the mediating role of safety climate on the relationship between workplace incivility and safety behaviour.

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

The focus on occupational safety over the last 100 years has contributed significantly to saving lots of lives (Hoffman, Burke, Zohar, 2017). The current study is of benefit to both individuals and organisations as whole. Workplace Incivility requires thoughtful research and managerial consideration on account of its destructive impact on employees' and organisations (Cortina et. al 2001). Experienced co-worker and supervisor incivilities are prevalent forms of mistreatment in workplaces.

The study provides empirical evidence of antecedents of safety which are often overlooked but in reality, are expressed in various forms and potentially have adverse impact on workers and organisations as a whole. The study thus will add to the safety literature by exploring relatively less examined contextual variable like incivility (counter-productive

behaviour) in the workplace and its effects on safety on employees' working in the manufacturing industry and similar hazardous organisations in Ghana. Workplace incivility is pervasive and manifests in organisational structures where there is reasonable level of interaction amongst workers. This will add to the knowledge and information about the perception of safety and its effect on safety behaviours and practices.

The findings from this study serve as a guide policy makers and key industry players in the manufacturing industry as well as other high-risk sectors to formulate effective preventive programs and interventions related to safety at the workplace. Also, the role of leadership behaviour in handling both incivility and safety is highlighted. The study gives an appreciation of how management commitment to safety, positive leadership behaviour and ethical climate can mitigate counterproductive behaviours and concomitant safety outcomes. Consequently, stakeholders of different sectors of the economy especially those in some high risk sectors such as manufacturing, construction, oil and gas, health etc. can acquire necessary insights on how to enhance the general level of safety practices and lessen workplace deviance.

### **1.5 Outline of the Thesis**

This thesis is made up of five chapters. Chapter one is the introduction, which details the background to the study, statement of the research problem, aims and objectives and the relevance of the study.

Chapter two focuses the literature review encompassing of the enquiry of key concepts of the study, theoretical framework as well as review of related studies germane to the study variables.

Chapter three constitutes the methodology used for the study. The research design, population, sample and sampling procedure, the measures of data collection and ethical considerations are detailed in this chapter.

Chapter four covers the results section. It presents the preliminary analysis and inferential analysis used in testing stated hypothesis.

The fifth chapter constitutes the discussion of the findings. It also covers the limitations, theoretical and practical implications, recommendations and conclusion.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter present a theoretical framework containing theories that explain the concepts under investigation and also includes a detailed review of studies related to the study. It provides a theoretical background on workplace incivility, ethical leadership and occupational safety as well as a comprehensive review of studies related to the present research. The chapter concludes with hypotheses, conceptual framework and operational definitions of key terms used.

#### **2.2 Theoretical Framework**

The concentration of research efforts on workplace incivility, ethical leadership and occupational safety has led to the building of a considerable amount of theories that explain these phenomena. Therefore, the theoretical basis of this study is highlighted in this section. For the purpose of this current study, two relevant theories are examined: social learning theory and social exchange theory, which serve as the framework within which the results of the study are explicated.

##### **2.2.1 Social Exchange Theory (SET)**

Social exchange theory is a prominent theory with regards to workplace relationships. (Molm, Peterson & Takahashi, 1999). The theoretical underpinning for civility laying the foundation for safety is grounded on the social exchange theory. Social exchange theory (Blau, 1964; Homans, 1961; Thibaut & Kelley, 1959) postulates that people evaluate possible benefits and costs of social relationships, and eventually seek to increase beneficial part and lessen the costs. Costs denote economic exchanges as well as social exchanges (Blau, 1964).

Social exchanges work to form “enduring social patterns” (Cropanzano & Mitchell, 2005; p. 882). The mechanisms along which social exchange relations are channelled encompass perceived organizational support, team support, supervisory support, leader-member exchange and trust (Cropanzano & Mitchell, 2005). Zohar (2010) gives extra help to this thought by affirming that additional safety climate perceptions are frequently the consequence of social exchange relationships between superiors and subordinates. Civility is therefore an additional mechanism along which reciprocity is created. When dealt with in a respectful manner, it would produce a reciprocity norm for safety (McGonagle, Walsh, Kath, & Morrow, 2014). When employees get the sense that they are dealt with respectfully, they are influenced to respond and adhere to safety directives. Also, at the point when supervisors are of the impression that they have been treated respectfully, they have the inclination of reciprocating by providing support for the safety of workers.

Thus, workplace incivility may be understood in the context of social exchange theory. Managers, whether deliberate or not, lay down the marker for civility at the workplace (Pearson & Porath, 2009). In workplaces where it is definite that the execution of task and handling of others are not regarded as distinct entities, workers will feel more assured that management is effectually upholding a civil work setting (Sutton, 2007). If positive norms for civility are perceived by employees, which emanates from proactivity of management in keeping a civil work environment (such as, by modelling civility, giving reward for respect, penalising incivility; Porath & Pearson, 2013), social exchange theory spells out that there is an inclination to reciprocate toward safety-supportive behaviours of a leader by showing forth safety behaviours (Hofmann et al., 2003). As such acts of incivility may point to a shortcoming on the part of management to maintain a civil workplace.

Also, to appreciate ethical leadership, Brown et al., (2005) suggested the social exchange theory as the basis for explaining past history and outcomes. The theory explains

why some leader characteristics and situational factors are associated with followers' perception of a leader as one who is ethical. The theory explains why employees have the inclination to reciprocate in good ways when they perceive their supervisors are ethical. When employees feel their supervisors are fair in their judgement, engage them in the decision-making process and have their interest at heart, they will feel the need to put more energy in activities that yield creative concepts in order to reciprocate the gesture they receive from their supervisors.

Social exchange theory however lacks detailed information with respect to various exchange rules (Cropanzano & Marie, 2005). The main exchange rules discussed in the theory is reciprocity however some researchers have opined that a better understanding of the theory can be gained by assessing other exchange rules such as altruism, status consistency, group gain and competition (Cropanzano & Marie, 2005; Walczak, 2015).

Relating the social exchange theory to the current study, employees, based on the nature of relationship that exists with their fellow colleagues and supervisors and the kind of treatment they receive, may be influenced to respond in like manner even with regards to safety related issues at the workplace. The negative effects of incivility may engender a negative climate for safety. Thus when treated respectfully, workers may reciprocate by participating or complying with all safety measures. On the other hand, incivility experienced by workers may also translate to less safety behaviours at work. This may come in the form of reduced compliance to safety or lack of participation on safety related issues on the part of workers.

Specifically the safety of employees may be compromised by not fully participating in safety activities such as assisting colleagues to make sure that work is performed safely. They may also have the inclination to work less collaboratively with other others at the workplace. Also, when faced with heightened incivility from supervisors, workers may be

resentful and drag their feet in the performance of their duties. Not collaborating or fully executing their mundane safety obligations as a result of umbrage from supervisors and the organisation at large can affect workplace safety.

### **2.2.2. Social Learning Theory (SLT)**

Ethical leadership may be understood within the framework of Social learning Theory. The SLT, advanced by Bandura (1977, 1986), postulates that people learn behaviour from their environment through the process of observational learning. Bandura (1977) believes that people actively process information and deliberate on the association between their behaviour and its consequences.

Thus, people learn by observing the behaviours and attitudes of other people, and the outcomes of those behaviours (Bandura 1977). The theory explicates human conduct with regards to persistent and shared relations between cognitive, behavioural, and environmental influences. It proposes that individuals learn new forms of behaviour or suitable behaviours through a role modelling process, by observing that of other people (Bandura, 1977, 1986). When selecting models for suitable behaviour, people will probably focus and imitate behaviours from dependable and attractive role models. As a result of their status in organizations, supervisors are usually seen as legitimate mentors or models for normative behaviour. Aside direct observation, superiors influence their employees due to the power they hold to hand out rewards and punishment.

According to the theory, followers classify their leaders as ethical leaders when the said leaders are attractive and seen a credible role model. Thus, people focus and imitate the attitudes and behaviours of attractive and credible models since most people look beyond themselves for ethical direction (Kohlberg, 1969; Trevino, 1986). Also, power and status are attributes that augment the attractiveness of models (Bandura, 1986). Therefore since ethical

leaders acknowledge ethical behaviour and frown on unethical ones; they encourage their personnel to take part in satisfactory conduct. Aside the direct influence of modelling leader behaviour through rewards and punishments, social learning theory also stresses on vicarious learning. This is the view that individuals realize what is anticipated from them and the standards for conducting themselves in an appropriate not only on personal experiences but additionally through 'second-hand' learning or by the observation of other people (Bandura, 1977, 1986). There is an indication that in today's fast growing world where people do not generate ideas and products from their experiences, they rather resort to learn from the experiences of other people (Huber, 1998). Thus, in a team, social learning among group members may transpire directly or vicariously, through the experiences of others in the group. Leaders establish appropriate norms in groups when they act and communicate ethically through the use rewards and punishment to promote ethical behaviours in that sense unethical behaviour on the part of employees is less likely (Mayer, Aquino, Greenbaum, & Kuenzi, 2012)

Some drawback of the STL is the focus on the environment as the primary determiner of behaviour. It is restricting to portray behaviour purely according to nature or nurture and efforts to do so plays down the sophistication of human behaviour. The most feasible way is to see human behaviour as an interaction between nature (biology) and nurture (environment). Understandable the SLT does not provide a holistic explanation for every kind of behaviour. This is mostly true when an individual has no obvious role model to look up to or imitate.

In relating this theory to the current study, leadership plays a prominent role in organisations especially in the fulfilment of ethical standards and requirement in organisations. Employees learn directly or vicariously (second hand learning) by observing the ethical standards of others especially those at the helm of affairs. As such they are may be

influenced to conduct themselves in satisfactory (civil) manner and further adhere to all laid down safety requirement in the high-risk organisations in which they operate. Thus the inverse relation between incivility and safety behaviour could be strengthened by ethical leadership. This is because ethical behaviours are rewarded while unethical ones are disciplined.

Ethical leaders create good ethical climates which discourage negative workplace attitude. Therefore, rude and condescending behaviours are not encouraged among workers. Ethical leadership rather creates vibrant work environment which may enhance safety at the workplace and encourage employees to uphold safety behaviours and standards. They encourage workers to exhibit behaviours such as working collaboratively, developing environments that support safety and attending safety meeting as well as complying with safety measures at work.

## **2.3 Conceptualization of Terms**

This section explains the general overview and conceptualization of studied variable namely workplace incivility, ethical leadership, safety climate and safety behaviour among manufacturing workers.

### **2.3.1 Workplace Incivility: A general overview**

Workplace incivility is a type of counterproductive or negative behaviour. It is defined as “low-intensity deviant workplace behaviour with an ambiguous intent to harm” (Andersson & Pearson, 1999, p. 457). These behaviours are in desecration of workplace norms for mutual respect. Instances of uncivil behaviour include talking down to others, passing disparaging remarks, and intentionally not collaborating with others (Porath &

Pearson, 2013). Experienced incivility denotes the level of incivility that workers perceive they have gone through at the hands of their colleagues or other persons at the work place (Blau & Andersson, 2005).

The key definitional elements that distinguish workplace incivility from adverse workplace constructs or behaviours are the intensity of behaviour (low intensity compared to aggression, bullying and violence) and intention to cause harm (ambiguous rather than clearly diagnosable). Instances of low intensity behaviours comprise snubbing or verbally condescending co-workers while ambiguity of intent is the lack of ability of the target, onlookers, or instigator to judge whether harm was planned (Andersson & Pearson, 1999; Cortina et al., 2001). Thus, according to Namie (2003), incivility is a type of organizational disturbance that could be rated as less severe (from 1 to 3) compared to bullying (from 4 to 9) and homicide (10) on a 10-point scale.

Also, another differential factor that sets incivility apart from adverse leadership concepts such as abusive supervision is related to the source of the behaviour. Incivility may be perpetuated by co-workers and not only by persons in high management or supervisory position. Therefore, in the present study, supervisor incivility and co-worker workplace incivility are assessed. Majority of research on incivility seeks participants' views on the frequency with which they experienced uncivil behaviour from supervisors or co-workers with a specific time frame (Cortina & Magley, 2009; Lim, Cortina & Magley, 2008).

According to Schilpzand, De Pater and Erez (2016) workplace incivility can be grouped into three distinct, but interrelated areas, namely, experienced incivility, witnessed incivility, and instigated incivility. Experienced incivility examines the feelings, thoughts, behaviours, and other correlates of workers who are the target of uncivil behaviour at the workplace. Witnessed incivility deliberates these relations for witnesses of incivility at work

while studies on instigated incivility examine the initiators of incivility and the behaviour they emit towards workers.

### **2.3.2 Ethical leadership: A general overview**

It has been argued by some researchers that the substance of effectual leadership is ethical behaviour (Brown & Trevino 2006). Ethical behaviour is an essential element in a couple of leadership theories, such as transformational leadership (Bass 1998; Smith, Eldrige & DeJoy, 2016), authentic leadership (Avolio & Gardner 2005; Mirza, Isha, 2017), servant leadership (Greenleaf 1977), and spiritual leadership (Fry, 2003). For instance, transformational leadership accentuates ethical role modelling (Copeland, 2016), authentic leadership highlights principled decision-making (Brown & Trevino 2006), and spiritual leadership stresses the integrity of the leader and ethical treatment of other people (Reave, 2005).

Ethical leadership is defined as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement and decision-making” (Brown, Trevino & Harris., 2005, p. 120). This definition suggests that ethical leaders’ behaviours serve as role-modelling behaviour for subordinates because their conduct is recognised as reasonable and acceptable. In the same breath ethical leaders transmit and justify the actions they take to subordinates (Bass & Steidlmeier, 1999). Thus ethical leaders aspire to persistently operate in accordance to ethical dictates in the organisation by laying down ethical standards and enforcing them through rewards and punishment (Michelic, Lipicnik, Tekavic, 2010). They integrate ethical consideration when taking decisions. Such leaders take into consideration the ethical ramifications of their actions and most importantly aim to settle on acceptable decisions. Ethical leadership is therefore placed among positive leadership behaviours.

It is just in the contemporary years that managers and scholars have concentrated on ethics management (Trevino & Brown, 2005). Ethical leadership elicits desired outcomes for followers and organizations which are manifested in perceived leaders' effectiveness, job satisfaction, high job commitment and reporting of problem (Brown et al., 2005). The standards necessary for assessing ethical leadership behaviour include individual values, conscious intentions, and freedom of choice, level of moral development, forms of influence used, and use of ethical and unethical behaviour (Yukl, 2006). Leaders are the primary influence on ethical behaviour in organisations. It is therefore their duty to establish codes of conducts that regulate the behaviour of employees at work. If safety culture or ethics of organizations are accurately assessed it can guide the future prediction of the effect of safety outcome. As a result it affords the opportunity to plan cost effective safety policies and interventions (Freiwald, 2013).

### **2.3.3 Safety Behaviour**

In-depth safety research has shown that one way of studying safety outcomes in organisations is through safety behaviour (Amponsah-Tawiah & Adu, 2016, Cooper & Phillips, 2004; Lui et al., 2015). Safety behaviour is seen as actions that are adopted by individuals to avert feared outcomes and uphold a sense of safety. Safety participation and compliance were identified as sub dimensions of safety behaviour (Neal & Griffin, 2006). Safety participation is thus seen as actively getting involved with safety activities on the job in order to make sure work environment is safe. It refers to behaviours "that may not directly contribute to workplace safety, but they do help to develop an environment that supports safety" (Griffin & Neal, 2000, p. 349). Some of the activities are assisting colleagues to make sure work is performed safely as well as participating in safety briefings (Neal & Griffin, 2006). Safety participation has a pronounced voluntary component that goes outside the definite 'work role' that people have within an organization (Clarke, 2013). Neal and Griffin

(2006) established that if workers participate in safety activities, it can result to the reduction in accident occurrence.

Correspondingly, safety compliance is conceptualized as abiding to all precautionary measures on the job to ensure the workplace is safe. Safety compliance is described by Neal and Griffin (2006, p. 947), as ‘the core activities that individuals need to carry out to maintain workplace safety’ and includes for instance following correct safety rules (Vinodkumar & Bhasi, 2010). Examples of such actions are complying with regular job procedures and putting on safety equipment required by practice. For many establishments the disposition of people towards compliance is of ethical concern (Lundgren & McMackin, 2009), as for most institutions it is an important issue to stabilize the necessities of the institution and the employees.

Hayes, Peranda, Smecko and Trask (1998) report that workers, who perceived the work they do as safe, complied frequently with safety behaviours at work compared to their colleagues who had a poor perception of workplace safety. This spells out the importance of safety climate for institutions and establishments. The behaviour of workers usually varies from their intent with regards safety related issues. It is usually not the safety behaviour of the employee itself, but the defiance of safety measures and resisting partaking in events that could enhance the well-being of others. Consequently, the noncompliance of safety behaviour can directly affect the workers and their surroundings (Neal & Griffin, 2006).

An organisation with a good safety culture is often characterised by all of its members feeling a joint responsibility for safety, and by the high priority placed on safety by both management and employees. Safety culture is a subset of the overall culture in an organization and an indicator of safety outcomes across industries. A good safety culture is characterised by members in the organisation who expect problems to happen and who strive to integrate safety thinking and action into all aspects of practical work (Hale, 2000).

### **2.3.4 Safety Climate**

Safety climate is defined as the “shared perceptions of employees about the safety of their work environment, and provides a background against which day-to-day tasks are performed” (Hahn & Murphy, 2008, p. 1047). These collective perceptions are identified from varied elements including board room decision making, safety norms and standards in the organisation, measures and practices and expectations, which operates in tandem to highlight organisational commitment to safety. A collection of empirical studies indicates that a positive relation between safety climate and safety performance (Chan, Woon & Kankanhalli, 2005; Choudhry, Fang & Lingard, 2009). An employee perception about safety is vital because it is related to better observance of safe work behaviours (Zohar, 2010). Also, research has been relatively consistent and pointed out the relationship between safety climate and leadership (Hofmann et al., 2003; Zohar & Luria, 2005; Zohar & Tenne-Gazit, 2008).

In the current study safety climate is seen as the perception of workers towards safety at the work. Safety climate thus consist of four dimensions namely co-worker behaviour norms, safety feedback, management commitment and worker involvement in safety dimensions (Hahn & Murphy 2008). Safety climate served as a suitable concept to enhancing safety in the past few years (Zohar, 2010). Safety climate characterizes the attitudes of people toward safety and is created by way of interaction with the environment particularly the safety-specific feature of the workplace setting (Weyman, Clarke & Cox, 2003). It is through this interactive procedure through which people develop perceptions, attitudes, and beliefs about organizational safety, that comes together to form the safety climate. Thus, safety climate provides a background for the explanation of organizational happenings and procedures with respect to individual and organizational safety ideals and reveals the

suitability of safety-related performance (Clarke, 2010). The safety climate/culture has been shown to be a robust leading indicator or predictor of safety outcomes across industries and countries (Nahrgang, Morgeson & Hofmann, 2007; Christian, Bradley, Wallace & Burke, 2009; Zohar, 2010).

#### **2.4 Manufacturing Industry in Ghana**

According to the Labour force survey (2015), the manufacturing industry is the third major industry of employment, engaging about 1.2 million of the currently employed in Ghana. The Ghana Statistical Service (2015) reports that in the year 2014, jobs created by the industrial sector was 24,095 with 19,113 coming from the manufacturing sector. Also, the government's policy of 'One District, One Factory' is meant to further strengthen the industrial base of the economy to further create more jobs in Ghana. The sector makes it fair share of input to the Ghanaian economy contributing 9% to Gross Domestic Product (GDP). The manufacturing sector (about 90% centred in the Greater Accra region) is a key target sector in terms of foreign investment with an accumulated amount of US\$2.3 billion between 2001 and 2006(GIPC, 2007). The manufacturing sector has a diverse array of sub sectors. The Ghana National Commission for UNESCO report that Ghana's most essential manufacturing industries comprises of aluminium smelting, agro-food processing, oil refining and cement. Other sub sectors consist processing of wood and metals, production of plastics, glass, textile, beverages, chemical and pharmaceuticals. Sustainable Development Action Plan (2010) reports aluminium smelting, sawmills, agro processing, cement and breweries are the key activities in the manufacturing sub-sector.

Despite its significant contributions, manufacturing sector faced with challenges of their own including lack of reliable supply of affordable energy and financial difficulties (AGI, 2007). Also, the issue of employee health, safety and security issue is another major area of concern. For instance, a report from the Ghana labour department (2000) revealed that

the building sector accounts for the maximum rate of occupational death as well as industrial accidents compared to other industries. The manufacturing sector continues to record high rate of accidents. Labour force survey (2015) report 69,874 occupational injuries in the manufacturing industry in Ghana leading to an average of 14 days lost per injury. Workers of manufacturing industries are continually exposed to work-related hazards, risks and injuries (Quartey & Puplampu, 2012; Gyekye et al., 2012).

Activities of iron and steel firms for instance expose employees to various forms of risks and unsafe behaviours that could lead to incidents, injury, death, ill health or diseases. According to Cole (2002) falling and slipping is a major source of accidents in manufacturing firms. Moreover, as a result of low capital, many manufacturing industries are unable to invest in modern and safe equipment (Rankin et al., 2006). Hence, most workers in the manufacturing sector to safety issues. The focus of safety research within these kinds of industries has revealed that many of these work environments are particularly precarious and harmful to the safety and health of employees (Smith, Karsh, Carayon & Conway, 2005).

## **2.5 Review of Related Studies**

This subsection gives account of previous studies conducted in connection with the variables under study. The purpose is to bring to light what knowledge and ideas have been established on the topic by other researchers. The section reviews some studies on the different ways in which workplace incivility, ethical leadership and workplace safety have been researched in relation to the present study.

### **2.5.1 Workplace incivility and Safety**

Several studies have been carried out on negative workplace behaviours with findings indicating adverse effects of such behaviours on individuals (e.g., Adam & Webster, 2013; Bunk & Magley, 2013; Cavanaugh, Campbell & Messing, 2014; Demsky, Fritz, Hammer &

Black, 2019, Khan & Khan 2012; Nitzsche, Ribeiro, Laneiro, 2018) and the overall performance of organisations(e.g., Hoel, Sheehan, Cooper & Einarsen,2011; Trepanier, Fernet, Austin, & Boudrias, 2016). Such behaviour akin to incivility have been linked to less organisational citizenship behaviours (Dalal, 2005), high turnover intentions (Arslan Yurumezoglu & Kocaman, 2016) and stress (Bowling & Beehr, 2006) among others.

In a survey study comprising 800 employees from across a selection of industries, Porath and Pearson (2013) reported that 48% of targets deliberately lessened their work effort while 38% deliberately dropped their work quality. Also 66% of them experienced low job performance, and 78% recounted a decline in their level of commitment at work.

Furthermore, empirical studies indicate that experiencing incivility adversely affects job satisfaction, psychological and physical well-being, and turnover intentions (Lim et al., 2008; Schilpzand et al., 2016). Likewise, it has been proven that merely witnessing incivility can lead to lower commitment, reduced job satisfaction, burnout, and high turnover (Miner-Rubino & Cortina, 2004). Porath and Erez (2009) for instance found out that either experiencing or witnessing incivility led to the reduction in task performance, level of creativity, and helping behaviour. Also, incivility experiences is found to predict incivility perpetration and that males are more likely exhibit uncivil behaviour when their institution assents insolence (Gallus, Bunk, Matthews, Barnes-Farrel & Magley, 2014)

Some studies have been undertaken to find the prevalence of workplace incivility among contemporary workers. A study by Ohemeng & Adu-Brobby (2018) was conducted about incivility in organisations from the Ghanaian perspective. They sought to examine the different forms of incivility and their impact on performance. Interviews were used to elicit information from workers who were purposely sampled from different organisations in the Kumasi Metropolitan Assembly. The finding suggests incivility was prevalent and the most

common uncivilized behaviours at the workplace include: insulting, snubbing, shouting at others, gossiping, making cheeky comments looking meanly at others, not greeting colleagues, the use of abusive language, banging doors on others, and deliberately ignoring someone. Also, respondents identified absenteeism, abuse, sexual harassment, strain in interpersonal relationships and uncivilized attitudes as related to incivility at the workplace. Overall it was deduced that incivility is extremely costly to organisations in Ghana as it affects performance and creativity as well as having damaging repercussions for customers and citizens alike. The study however failed to highlight the specific sectors of the workforce that was used for the study.

A body of recent studies have focused on demonstrating the links between interpersonal treatment at work and safety. Consequently, some researchers have found associations between workplace incivility and safety at the workplace. Incivility has been found to be a precursor to a continuum of antisocial acts among clinical nursing teachers (Hunt & Marini, 2012). Haines, Stringer, and Duku (2007) carried out a study amongst nurses to examine the effect of safety climate and incivility on specified work-related practices and procedures. Results from 87 surveyed operating room nurses indicated that incivility was related to poor safety climate and lower practice of safe procedures. Specifically, there was infrequent use of safe and recommended operating room practices. However, no theoretical explanation was given for the relationship between incivility with safety climate and observed safety behaviours.

More so, Sabbath and Colleagues (2014) in a research study found that experience to verbal abuse at work had an association with healthcare worker injuries. A survey was conducted among 1,497 health care workers in Boston (USA). Self-report measures were used to assess exposure to workplace abuse. The results point out that exposure to abuse may be a risk factor for injuries amongst workers in the health care sector. Additionally,

McGonagle, Childress, Walsh and Bauerle (2016) in related study examined how civility norms could strengthen management commitment to safety and employees' safety behaviour, safety motivation and injuries. 290 working adults involved in hazardous jobs provided survey data with findings indicating that civility norms (absence of workplace incivility) facilitated the association between management commitment to safety and employee safety behaviour (safety compliance and safety participation).

A cursory look at the literature also revealed contradictory finding for the relationship between gender and experienced incivility. Lim and Lee (2011) found that as compared to women, men reported higher frequency of experiencing incivility whereas Cortina et al. (2001, 2013) discovered that women reported more cases of incivility than men. A study by Reio & Sanders-Reio (2011) to investigate the frequency with which employees were the target of supervisor and co-worker incivility reported that that females had experienced more co-worker incivility and males had experienced more supervisor incivility.

Workers with high perceptions of job insecurity and displeasure (in this case with incivility) have portrayed lower safety motivation and compliance, and subsequently, higher rate of job related injuries and accidents (Gyekye, 2005). Likewise, previous studies have demonstrated a positive association between physical aggression and workplace injuries (Miranda et al., 2011; Nixon, 2011; Yang, 2009). Taking a sample of workers from an Agricultural institute in the USA, Demsky (2015) reported that workplace incivility (a form of workplace aggression) was related with a decline in safety compliance and an increase in job-related accidents and injuries. Farrell et al. (2006) in a study involving a sample of 2407 nurses in Australia found that among the participants who had experienced aggression, over two-thirds reported that it often or intermittently contributed to the potential of making mistakes or affecting their productivity.

The extant literature therefore suggests an adverse relationship between incivility and workplace safety therefore necessitating the current investigation to either confirm or disconfirm earlier findings.

### **2.5.2 Sources of Incivility at the workplace: Co-worker and Supervisor incivility**

Many studies on workplace incivility have lumped supervisor and co-workers together. Comparatively, little is relatively known with respect to outcomes to incivility from different sources with literature revealing contradictory evidence. Schilpzand et al (2014, p. 65) opines that supervisory uncivil behaviour could be more harmful than co-worker incivility. This is because workers or victims of such behaviours rely on their superiors for evaluation and rewards. Consequently, victims of such incivility may presume that such uncivil behaviour may generalize and carry along other unfavourable events. Comparably co-worker incivility may be more detrimental than customer incivility, because workers may face an uncivil co-worker over and over again. These expectations are backed by indirect support from a meta-analysis study on the workplace aggression (in the forms of bullying, aggression, victimization, interpersonal conflict, abusive supervision and incivility) from different committers (Hershcovis & Barling, 2010).

Some studies have examined the occurrence of co-worker and supervisor incivility separately and the effectiveness of civility intervention (Leiter et al., 2011, 2012; Spence Laschinger et al., 2012). These studies reported higher levels of co-worker incivility compared to supervisor incivility after interventions took place. Work by Bruk-Lee and Spector (2006) also indicated that conflicts with supervisors or co-workers have different consequences. Whereas conflict with supervisors was likely to lead to counterproductive work behaviours directed towards the organisation that of co-workers was more likely to be directed towards individuals. This rational when related the study of workplace incivility presupposes that incivility from a supervisor may lead to lower job satisfaction while

incivility emanating from a co-worker may incite target to involve in more withdrawal behaviours (in this case low level of safety participation or non-compliance to safety). An empirical study was carried out by Reio and Sanders-Reio (2011) to investigate the frequency with which workers in the United States were targets of supervisor and co-worker incivility. The findings of the study indicated that both forms of incivility negatively predicted safety. Precisely, co-worker incivility was found to be more powerful in predicting safety engagement while supervisor incivility was closely associated with availability engagement. Holm, Torkelson and Backstrom (2015) found experienced incivility from co-workers to be directly related to negative outcomes such as poor psychological well-being, low job satisfaction and turnover intentions.

However, a study by Nitzsche, Ribeiro and Laneiro (2018) investigated the effect of workplace incivility on employee wellbeing among workers in the hospitality industry. The results suggested that supervisor incivility was substantially common than co-worker incivility; however supervisor and co-worker incivility were positive and significantly predicted emotional exhaustion and cynicism, which is a key component of burnout. Also supervisor incivility strongly predicted emotional exhaustion while cynicism was strongly predicted by co-worker incivility.

### **2.5.3 Safety climate as mediator between workplace incivility and safety behaviour**

Several researchers have placed a lot of attention on workers' perception of safety at the workplace (Zohar, 2010; Gyekye and Salminen, 2009). Civility is a mechanism through which reciprocity is generated (Cropanzano & Mitchell, 2005). When workers are dealt with respectfully, they may be influenced to adhere to safety directives due to an enhanced or better perception they may have generated at the workplace (Porath & Pearson, 2013). McGonagle, Walsh, Kath, and Morrow (2014) examined perceptions of civility norms (i.e. absence of workplace incivility) to perceptions of safety climate and safety outcomes. Two

samples made up of full-time mechanical workers (635) and part time employees of medium-sized grocery stores (1069) were sampled. The results suggested an indirect relation between civility and safety behaviours of workers and injuries through different facets of safety climate. Management and co-safety climate were the specific psychosocial safety climate dimensions used to explore this relationship. However, a more comprehensive study inculcating other dimensions such as competence and safety system could be effectively explored to examine safety climate and civility (Flin, Mearns, O'Connor, & Bryden, 2000).

Several empirical studies on safety research have highlighted an association between safety climate and safety behaviours among workers (Griffin & Neal, 2000; Neal, Griffin, & Hart, 2000; McGonagle et al, 2014, Zohar, 2002). A study by Sussana et al (2013) reports that safety climate has a causal effect on workers safety behaviour. Also, Garcia and Canosa (2004) opined that safety climate is strongly linked with the safety behaviour of workers. This study was supported by finding of Amponsah-Tawiah and Adu (2016) who in a related study discovered that employees who perceive safety communication, safety systems and training positively were likely to adhere to safety rules and measures than willingly participate in safety activities. Likewise, Tholen, Pousette and Torner (2013) studied the association between conducive environment, psychosocial conditions and safe acts among industrial workers. Finding indicated safe environment predicted the display of safety behaviour. Therefore, this is suggestive that an appreciation the psychological and social conditions at work can affect the perception of workers which can translate into positive safety attitudes and behaviours.

There is an established association between safety climate and employee safety compliance and participation, and subsequent association to accident involvement (Zohar, 2010). The overall observation is that safety climate directly impacts safety behaviour, which then directly affects to safety outcomes, such as accidents and injuries (e.g., Clarke, 2010;

Christian et al., 2009; Pousette et al., 2008). Managerial trust and perceived safety climate has been reported to mediate the association between high performance work systems and safety incidents (Zacharatos et al., 2005). A meta-analysis study by Clarke's (2010) affirms the association between safety climate and safety performance, but weaker general support for the association between safety climate and frequency of accidents. Other researchers have reported a positive correlation between safety climate and safety performance (Hofmann and Stetzer, 1998), compliance with safety management polices (Probst and Brubaker, 2001), involvement in citizenship behaviours (Gyekye and Salminen, 2005; Lee et al., 2007)

Positive safety climate thus lead to the development of favourable work attitudes among employees. A study by DeJoy et al., 2010; Gazica and Spector (2016) was conducted using 368 employees from various industries in the US. In the study safety climate, violence prevention climate, and civility climate were individually developed and associated to domain-specific hazards at the workplace, though all three were created to enhance employees' physical and psychological safety of employees. The results indicate that the three climate domains had a similar predictive influence on most workplace hazards. Also, Ottinot (2008) advanced a scale for civility climate centred mainly on the safety climate and violence prevention climate literatures. Safety climate may thus indirectly affect the relationship between incivility and safety behaviour. In this regard the current study postulates that safety climate will mediate the relationship between workplace incivility and safety behaviour.

#### **2.5.4 Ethical leadership as moderator between workplace incivility and safety behaviour**

It has been argued that leadership has an impact on civility (Porath, 2010). It is asserted by scholars that general climate of informality makes a contribution to the high preponderance of incivility (Andersson & Pearson, 1999). Ethical leaders reward ethical

behaviour and discipline unethical ones, and thus influence their personnel to take part in satisfactory conducts through social learning process (Bandura, 1986). Employees experiencing lower unsatisfactory conducts may exhibit desirable levels of participation and compliance to safety measures. Thus ethical leadership may therefore influence the strength of the inverse relationship between incivility and safety behaviour. Building on prior knowledge that workers who have ethical leaders are less likely to indulge in deviant and unethical practices, Taylor & Pattie (2014) assessed the moderating roles of follower personality on ethical leadership and workplace incivility. Using the educational sector as the research setting, data was taken from workers in a public school in U.S. Results indicated that personality (conscientiousness) may moderate the relationship between ethical leadership workplace incivility.

A similar study conducted by Mayer, Kuenzi and Greenbaum (2011) explored the link between ethical leadership and employee misconduct. A large sample consisting of 1,525 workers and supervisors were drawn from 300 units in organisations in USA. The results of the study confirmed mediation roles of ethical climate in the relationship between ethical leadership and employee misconduct. In a related study Walsh, Lee, Jesnsen, McGonagle and Samnani (2017) investigated the relationship between positive leadership behaviour (those related to ethical leadership and charismatic leadership) and workers' experience of workplace incivility. This relationship was explored using employees and their co-workers as well as employees and their supervisors). Findings suggested that both ethical leadership and charismatic leadership were associated with experiences workers' incivility through workers perception of norms for respects. Ahmad (2018) examined ethical leadership as an effective management strategy across two cultures specifically eastern (Austrian) and western (Pakistani) cultures. Results indicated a direct and indirect effect (through

interactional justice) of ethical leadership on workplace incivility. This is because ethical leaders cultivate justice at the workplace.

There is a long-standing view that leadership influence perceptions of people at work and that 'leaders create climate' (Lewin et al., 1939). Safety leadership positively influence safety compliance among workers (Pibean, Doherty, Davidson, Denyer, 2015). According to a study by Zohar (2002) a within-group split-sample analysis of 42 work groups gave the indication that injury rate was predicted by constructive and transformational leadership, a facet of ethical leadership (Avolio, 1999). A recent study by Khan, Ahmad and Ilyas (2018) examined the impact of ethical leadership on organisational safety performance. Paper and pencil questionnaire were used to collect data from a large public telecom company in Pakistan. 230 participants were randomly sampled. The findings of the study indicated that ethical leadership had an effect on organisational safety performance whilst the relationship between them was also mediate by safety culture and safety consciousness. In a related study, Chughtai (2015) examined the effect of ethical leadership on safety participation (safety compliance and safety participation). The study also explored job autonomy and self-efficacy as mediators in the relationship. Participants for the study were made up of sample of 179 full time doctors in a large public sector health facility in Pakistan. Findings of the study suggested that job autonomy and self-efficacy mediated the impact of ethical leadership on safety participation. Porath, Garbasi & Schorch (2015) explored the effects of civility, leadership and performance among workers in a bio-technology firm. Findings suggested that people who perceived their colleagues as civil are likely to seek such people out for work advice and to see them as leaders. Leadership mediated being civil and increase in performance including safety performance among workers at work. The review signals the pertinent role of leadership and in this regard the current study postulates a moderating role

of ethical leadership in the relationship between incivility and safety behaviour among workers.

In general, these studies explain the association between workplace incivility, ethical leadership, and safety climate and safety behaviour.

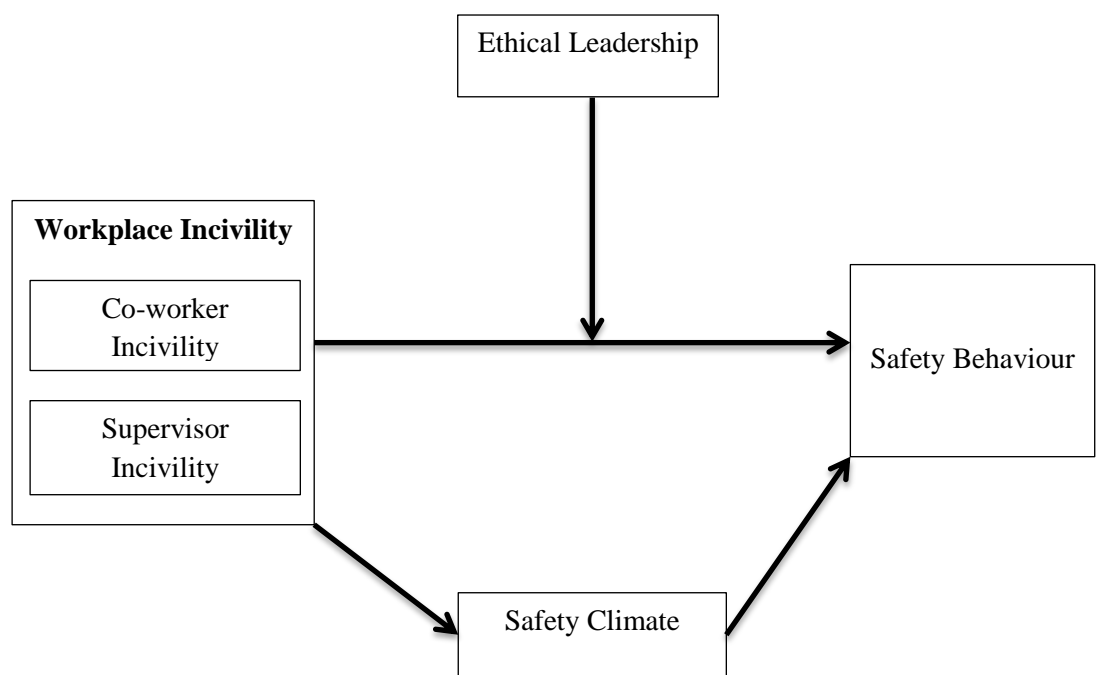
## **2.6 Rationale of Study**

With the increasing rate of technology, globalisation and contemporary nature of jobs, safety research has attracted a lot of interest and has led generally to improvement in the overall health and safety needs of employees. However sparse studies have been carried on deviant behaviours and their safety implications at the workplace. There is a gap in research safety research with respect to how organisational relationship and important workplace social constructs like workplace incivility impacts on the safety of workers (McGonagle et al, 2014). Studies conducted in the area have been predominantly carried out in western organizational context with high concentration in the health sector. Consequently, there is gap in research particularly in the Ghanaian setting. Thus, within the confines of the Ghanaian work environment this study seeks to examine the influence and role of these key variables in other high risk occupations such as industrial workers in the manufacturing sector. Also, the study answers the call for research to explicitly measure leadership constructs that may influence both civility norms and safety at work (McGonagle, 2014). Future research is warranted to investigate the links between incivilities at the workplace and safety outcomes and to assess the efficacy of civility interventions on these outcomes. This present study forms part of an endeavour to redress this situation.

## 2.7 Statement of Hypotheses

1. There will be a significant negative relationship between (i) co-worker incivility and (ii) supervisor incivility and safety behaviours.
2. Co-worker incivility will be a stronger predictor of safety behaviour than supervisor incivility.
3. Ethical leadership will moderate the relationship between workplace incivility and safety behaviours.
4. Safety climate will mediate the relationship between workplace incivility and safety behaviours.

## 2.8 Conceptual framework



**Figure 1: A conceptual Model describing the relationship among study variables**

The model (Figure 1) is a summary of the hypothesized mapped relationships between the independent, moderating, mediating and dependent variables.

## **2.9 Operational definition of terms**

**Workplace incivility:** low-intensity deviant behaviour with disrespectful treatment from supervisors and co-workers at the workplace.

**Ethical leadership:** demonstration of ethical standards and procedures in management and decision making

**Safety climate:** employees' perception of safety practices and management at the workplace.

**Safety behaviour:** refers to actions or behaviours that are exhibited at the workplace to promote the health and safety of workers and organisation.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter gives a description of how the study was carried out and the research methodology used in the study. It provides information on the population, sample, the sampling techniques, the research instruments used for the study and their psychometric properties. The chapter also details the processes used by the researcher during data collection for the study and the ethical issues observed.

#### **3.2 Design**

The nature of research and variables of interest informs the particular methodological approaches deemed suitable in psychological research. This study utilised a quantitative cross-sectional survey research design. This research design is employed in studies to ascertain any form of association that exists among constructs and to assess the strength of such relationship. Using this form of research design, information was gathered from a sizeable number of participants using a set of instruments with pre-set questions with fixed responses at one point in time (Creswell, 2012). This was considered to be appropriate because the study was aimed at determining the impact of different levels of the independent variable (workplace incivility) on the dependent variable (safety behaviours) among employees (Brewerton & Milward, 2001). Also, there was no direct manipulation of the research variables. The researcher only relied on the self-report information of the employees on the research variables.

### **3.3 Population**

This study was carried out in the manufacturing sector amongst producers of building materials and aluminium products in Accra. Thus, the target population for the study was made up employees working in manufacturing companies under consideration. Roofing and aluminium processing companies in the manufacturing sector were deemed suitable due to the nature of work which typically involves some degree of physical labour and a realistic possibility of occupational risks and safety hazards.

According to the Ghana Labour force survey (2015), the manufacturing industry is the third major industry of employment, engaging about 1.2 million of the currently employed. Despite its role in reducing unemployment and contributing 6.7% to the country's economy in the form of gross domestic product (Ghana Statistical Service, 2015), a report from the Ghana labour department (2000) revealed that the building sector accounts for the maximum rate of occupational death as well as industrial accidents compared to other industries.

### **3.4 Sample and Sampling Technique**

Participants of the study were made up of industrial workers from the manufacturing sector. A total of 173 workers from five manufacturing companies in Accra were used for the study. A total of 200 questionnaires were distributed. However, 182 were retrieved. Upon further examination of the returned questionnaires, nine (9) of them were removed from the data due to uncompleted responses. This resulted in 173 valid questionnaires for analysis. This represents a response rate of 86.50%. The sample size of 173 was considered appropriate for regression analysis. This is based on the formula put forward by Tabachnick and Fidell (2007) for the determination of a minimum sample size,  $N > 50 + 8M$ , where M is the number of predictor variables and N is the sample size. The present study has two main

independent variable, co-worker and supervisor incivility and from the above formula, a sample size of 66 should be the very minimum required. Based on the above deductions, a sample size of 173 was deemed adequate for the study.

Purposive sampling technique was used in this study. The purposive sampling technique involves the selection of research participants based on certain relevant characteristics. According to Patton (1990) information-rich cases are those from which a lot of information can be surmised and aligned to the purpose of the research. Purposive sampling was used to identify specific companies. Afterwards, participants who were available and ready to participate in the study were conveniently sampled.

The number of male participants stood at 140 (80.9%) while females were 33 (19.1%). Most of the respondents were single 100(57.8%). Thirty-six percent were married and the rest were divorced (5.8%). With respect to age majority of respondents were in the relatively younger as group of 18-30 (n=85, 49.1%) and 31-40 (n=67, 38.7%) compared to the older group; 41-50 (n=9, 5.2%) and 51 and above (n=12, 6.9%). In terms of level of education, the majority of the participants were high school leavers (n=78, 45.1%) followed by those with tertiary education (n=57, 32.9%). Most of the respondents had between one to five years of experience. Twenty-five percent had less than one year experience, 24.9 % (1-3 years), 24.3 % (3-5 years), 14.5 % (5-10 years) and 11 % (10 years and over). Table 1 presents a summary of the participants' demographic characteristics.

### 3.5 Demographic characteristics of participants

Table1.

*Participants' demographic characteristics (n=173)*

<i>Variable</i>	<i>Frequency</i>	<i>Percentage (%)</i>
<b>Gender</b>		
Male	140	80.90
Female	33	19.10
<b>Age</b>		
18-30	85	49.10
31-40	67	38.70
41-50	9	5.20
51 and above	12	6.90
<b>Marital Status</b>		
Single	100	57.80
Married	63	36.40
Divorced	10	5.80
<b>Educational Level</b>		
J.H.S	20	11.60
SHS/WASSCE	78	45.10
Tertiary	57	32.90
Other	18	10.40
<b>Tenure</b>		
Less than 1 year	44	25.40
1-3 years	43	24.90
3-5 years	42	24.30
5-10 years	27	14.50
Above 10 years	19	11.00

### 3.6 Instruments/Materials

A standardised questionnaire was the main instrument used for the data collection. All variables were assessed using standardized scales developed and used by several researchers. The questionnaire was made up of two sections. Section one captured the demographic characteristics of participants while the second section comprised scales that were used to assess the predictor, mediating and dependent variables.

Detailed descriptions of the measures are provided below:

### **3.6.1 Demographic variables**

This section of the questionnaire gathered information on the participants' ages, gender, and marital status, level of education and tenure of work.

### **3.6.2 Workplace Incivility Scale (WIS)**

Workplace incivility scale was by developed Cortina, Magley, William and Langhout (2001) to measure the frequency of participants' experiences of impertinent, discourteous, or condescending behaviours from supervisors and co-workers within the previous 12 months. The WIS consists of seven items referred to supervisor and co-worker-initiated incivility that measure the frequency with which individuals have experienced each statement. The perceptions of co-workers' and supervisors' incivility were measured distinctly as espoused by Smith, Andrusyszyn, and Laschinger (2010). The items are in line with the most usual "negative acts" at the workplace highlighted by Einarsen and colleagues such as devaluing of work and exertions, offensive comments, social marginalization (Einarsen, Raknes, Matthiesen & Hellesoy, 1994).

Participants answered to items with a 5-point scale in the range of never (1) to always (5). High scores indicate high levels of experiences of co-worker and supervisor incivility. A sample item on the scale include: My co-worker/supervisor 'addressed me in unprofessional terms, either publicly or privately'. Cronbach's alpha for this scale was .89 (Cortina et al, 2001). The instrument yielded a Cronbach alpha of .94 when it was piloted for this study. It

yielded a reliability coefficient of .93 and .92 for co-worker and supervisor incivility respectively after the main study.

### **3.6.3 Ethical leadership scale (ELS)**

The ethical leadership scale (ELS) was developed by Brown, Trevino and Harrison (2005). The 10-item ELS was used in assessing ethical leadership behaviour. Some of the items on the scale include: ‘My leader disciplines employees who violate ethical standards’, ‘my leader conducts his/her personal life in an ethical manner’ etc. All items were scored on a five- point scale in the range of 1 (strongly disagree) to 5 (strongly agree). High scores indicate a high level of ethical leadership behaviour. The scale is reliable with an original reported Cronbach alpha of .93). The scale yielded a Cronbach alpha of .95 when it was piloted for this study. For the present study a Cronbach alpha of .88 was recorded.

### **3.6.4 Safety behaviour Scale**

The safety behaviour scale has two sub-dimensions which measures safety compliance and safety participation (Griffin & Neal, 2000). Safety compliance was assessed with the 11-item compliance with safety behaviours (CBS) scale adapted from Hayes, Perander, Smecko and Trask (1998). In each of the CSB items, participants were asked to indicate how frequently they engage in the behaviour on their present job using a scale from 1 (“Never”) to 5 (“Always”). Higher scores indicated greater compliance with safety work behaviours. Three negatively worded items; 1, 8 and 9 were reversed scored. Sample of items on the scale include; “I follow all safety procedures regardless of the situation I am in”, ‘I wear safety equipment required by practice’. A study by Hayes et al (1998) reported a reliability coefficient of .85. Lu and Tsai (2011) report a Cronbach’s alpha of .90 for this scale.

Safety participation has six items and was measured on a 5-point Likert-type scale in the range of 1 (strongly disagree) to 5 (strongly agree). Higher scores reflected greater participation with work related safety behaviours. Samples of items measuring safety participation are: ‘assist others to make sure they perform their work safely, ‘try to change the way the job is done to make it safer’. Cronbach alpha for the scale is suitable,  $\alpha = .88$  (DeArmond et al. 2011). For the present study the scale yielded a composite Cronbach’s alpha of .86 with the subscales of safety compliance and participation having reliability coefficients of .75 and .83 respectively.

### **3.6.5 Safety climate scale.**

Safety climate was measured by the 6-item safety climate scale developed Hahn and Murphy (2008). The scale measures the perception about safety at the workplace. Responses were measured on a 5-point Likert-type scale in the range of 1 (strongly disagree) to 5 (strongly agree) with high scores indicating a better perception of safety at work. Cronbach alpha for the scale is suitable,  $\alpha = .92$ . A sample item is: “The health and safety of workers is a high priority with management where I work”. The current study recorded a reliability coefficient of .74 when piloted and .80 in the main study.

### **3.7 Procedure for Data Collection**

Firstly, ethical approval was sought by the researcher from the Ethics Committee for Humanities (ECH) of the University (ECH 032/18-19). After attaining ethical clearance from ECH, a letter of introduction was requested from the Department of Psychology. Upon receipt, a copy of the introduction letter, a copy of the certificate for ethical clearance, consent forms (see Appendix A) and sample of questionnaires were taken to the human resource managers of the selected manufacturing organizations to seek permission to take data from their workers. Permission was duly granted by the various institutions. A pilot study was conducted thereafter using thirty (participants). The researcher undertook the pilot

study to test for the adequacy and appropriateness of the research instruments and the reliability of the instruments designed for data collection. This process was needed due to the fact that even though these instruments have good reliability values, the Ghanaian cultural context and the population under study could affect the responses and consequently the reliability of the instruments. The assistance of the departmental heads was sought to help identify the targeted employees in the organizations. Afterwards different appointments were scheduled for the commencement of the main data collection.

The researcher stated the purpose of the study and provision was made for participants to express their consent. Participants who agreed and consented to be part of the study appended their signatures and proceed to complete the questionnaire. Instructions were stated at the beginning of each section of the questionnaire. However, the researcher was available to give clarification if the need arose. Participants who were very busy requested that the questionnaires be left with them after which the researcher went for them after a week.

### **3.8 Ethical Consideration**

The researcher adhered to all the relevant ethical principles of the American Psychological Association (APA, 2017) which guides psychological research in particular. The informed consent of participants was attained before commencing with the collection of data. Detailed information about the study was provided to the participants who had the freedom to choose whether to partake in the study or otherwise.

The researcher adhered to the principles of confidentiality and anonymity. Any information given out was kept confidential used for academic purposes only. By anonymity, the researcher did not disclose the names and identity of the research participants or any information that will make it possible to identify them. Participants were at liberty withdraw from the study at any point in time. Also, there was no inducement for participation in the

study. Thus, participation was solely voluntary. The entire exercise of data collection was harmless to participants. Lastly, the researcher made available his contact details including the provision of his phone number and email ensure so that participants could get in touch for any information or clarification concerning the study.

### **3.9 Conclusion**

This chapter focused on the methodology for the study. The research design, population, sampling, instruments for data collection, research procedure and ethical considerations guiding this study are discussed. The next chapter focuses on the data analyses and the testing of hypotheses.

## CHAPTER FOUR

### RESULTS

#### 4.1 Introduction

The study seeks to examine the effect of employees' experiences of workplace incivility on safety behaviours and the indirect effects of safety climate and ethical leadership in this relationship. The Statistical Package for Social Science (SPSS) version 21.0 was used in the analysis of data collected. 173 valid questionnaires were used for the final analysis. The chapter consists of preliminary analysis (mean, standard deviation, skew, kurtosis, reliability, and validity), hypotheses testing, findings and the related interpretations.

#### 4.2 Preliminary Analysis

Preliminary analysis entailing descriptive statistics (mean and standard deviation), reliability analysis and tests of normality were performed for the various study variables.

Table 2: *Summary of Means, Standard Deviations, Skewness, Kurtosis and Alphas of the main Study (N=173)*

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>Cronbach Alpha</i>
<b>Workplace incivility</b>	32.38	12.20	14	70	.80	.23	.95
Co-worker incivility	15.55	6.31	7	35	.67	.22	.92
Supervisor incivility	15.55	6.66	7	35	1.05	.88	.93
<b>Ethical leadership</b>	36.50	6.83	10	50	-1.00	1.68	.88
<b>Safety climate</b>	21.74	4.48	7	30	-.55	.27	.80
<b>Safety behaviour</b>	62.85	11.66	29	85	-.65	.35	.92
Safety compliance	41.35	7.62	19	55	-.57	.24	.87

Safety participation	21.50	4.59	9	30	-.67	.19	.83
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The descriptive statistics was generated from the summary of the raw data to generate the means and standard deviations of the sample used. The mean scores and standard deviations of the participants on each of the variables have been presented in table 1 above. Research that involves the use of parametric tests requires the establishment of the normal distribution of scores (Field, 2009). Particularly in regression analysis it is important that the dependent variable is normally distributed. The process used to establish whether or not a test is normally distributed in terms of scores by participants is normality testing. Thus normality test was undertaken and the analysis revealed a normal distribution of scores. The skewness of the main variables ranged from -1 to 1 and kurtosis fell within -2 and 2. According to Field (2009), skewness and kurtosis ranging from +2 to -2 is acceptable parametric tests. Also reasonably straight lines for normal probability plots suggested scores where normally distributed. The establishment of the distribution of the data as normal indicated that parametric statistical test was suitable for the study. Finally, the coefficient of internal consistency (Cronbach's  $\alpha$ ) was work out to elicit the reliability for the various scales and subscales found in the questionnaire. The scales reported acceptable reliabilities, with alpha values ranging from .76 to .95 (see table 1). This is in line with the recommendation of Nunnally (1978) that the Cronbach's alpha should be equal or not less than .70 if a collection of items can make up a reliable scale.

### 4.3 Factor Analysis of Scales

The researcher carried out an exploratory factory analysis (EFA) of items on the scales. This was done to determine the construct validity of the scales and ensure they measured what they were intended to measure (Tabachnick & Fidell, 2007). Hence, the factor analysis enabled the researcher to determine whether the various items on the scales would

produce pattern loadings leading to the measurement of the construct (Field, 2007). It allowed the researcher to determine if factor loadings on the scales were similar to those on the original scales.

#### **4.3.1 *Exploratory Factor Analysis of Workplace Incivility Scale***

The 14 items on the Workplace Incivility Scale was subjected to Principal Axis Factoring using oblique rotation specifically direct oblimin. Suitability of the scale was assessed for factor analysis. The correlation matrix indicated that all the coefficients were above .30 which is desirable (Pallant, 2011). Also, the factorability of the data was assessed with Bartlett's test of sphericity (Bartlett, 1954) and the Kaiser-Meyer-Olkin (KMO) measure of adequacy (Kaiser, 1974). According to Tabachnick and Fidell (2007), Bartlett's test should be significant ( $p < .05$ ) and the KMO index should have a minimum value of 0.6 for factor analysis to be considered appropriate. The Bartlett's test of sphericity was significant ( $\chi^2_{(99)} = 1852.235, p = .000$ ) and KMO= .943 confirmed adequacy of sampling for analysis. Two components had eigenvalues over the Kaiser's criterion of 1 with both combining for 65% of variance. Factor rotation elicited the presence of a simple structure of the factor loadings of the items (see Table 3. below).

#### **4.3.2 *Exploratory Factor Analysis of Ethical Leadership Scale (ELS)***

The ELS scale contains 10 items and was subjected to EFA with direct oblimin (Table 4. below). The components were extracted by conducting a Principal Component Analysis (PCA). Most of the items on the scale recorded correlations above .3 on the correlation matrix and hence apposite for factor analysis (Pallant, 2011). The scale reported a KMO value of .867. The Bartlett's test of sphericity record statistically significant

( $\chi^2_{(45)} = 730.233, p = .000$ ). From the PCA, two components were extracted accounting for 59% of variance. The items loaded well on at least one of the two components. The two components are consistent with Brown et al. (200) moral person (personal characteristics and behaviour) and moral manager dimensions (moral leadership behaviours) of ethical leadership (Trevin et al. 2000).

**Table 3: Summary of the Exploratory Factor Analysis of Workplace Incivility Scale (WIS)**

ITEMS	Component	
	1	2
Supervisor made derogatory remarks about you	.793	
Supervisor addressed you in unprofessional terms	.763	
Supervisor excluded you from professional friendship	.754	
Supervisor paid little attention to your opinion	.749	
Supervisor doubted your judgement	.694	
Supervisor was scornful to you	.676	
Supervisor made unwanted attempt on personal matters	.601	
Co-worker made derogatory remarks about you		.733
Co-worker excluded you from professional friendship		.709
Co-worker addressed you in unprofessional terms		.704
Co-worker paid little attention to your opinion		.699
Co-worker was scornful to you		.683
Co-worker doubted your judgement		.677
Co-worker made unwanted attempt on personal matters		.665
<i>% of variance</i>	58.931	5.646

Extraction Method: Principal Axis Factoring.

**Table 4: Summary of the Exploratory Factor Analysis of Ethical Leadership Scale(ELS)**

ITEMS	Component	
	1	2
My leader makes fair decisions	.919	
My leader can be trusted	.852	
My leader has best interest of employees in mind	.841	
My leader listens to employees	.623	
My leader disciplines	.549	
My leader ask about the right thing to do when making decision	.523	
My leader defines success by how its obtained not just results		.840
My leader conducts personal life in ethical manner		.802
My leader sets right examples		.322
My leader discusses ethics with employees		.301
<i>% of variance</i>	48.648	10.580

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization

#### **4.3.3 Exploratory Factor Analysis of Safety Climate**

The Safety Climate Scale contains 6 items and was subjected to EFA with direct oblimin (Table 5. below). The components were extracted by conducting a Principal Component Analysis (PCA). Most of the items on the scale recorded correlations above .3 on the correlation matrix and hence suitable for factor analysis (Pallant, 2011). The scale reported a KMO value of .742. The Bartlett's test of sphericity record statistically significant

( $\chi^2_{(15)} = 348.758, p = .000$ ). From the PCA, the eigenvalue recorded was 3.001 accounting for 50% of variance. The factor rotation elicited the presence of a simple structure of the factor loadings of the items.

**Table 5: Summary of the Exploratory Factor Analysis of Safety Climate Scale**

ITEMS	Component
	1
Safety is a high priority with management	.776
Workers and management work together for safest conditions	.750
Feel free to report safety problems	.735
Employed are told when they do not follow safety practices	.680
New employees lean to follow good safety practices	.665
No major shortcuts when worker safety is at stake	.626
<i>% of variance</i>	50.010

Extraction Method: Principal Component Analysis.

#### **4.3.4 Exploratory Factor Analysis of Safety Behaviour**

The 17 items on the Safety Behaviour scale were subjected to EFA to identify the composite scores for the factors of safety behaviour. Components were extracted by conducting a PCA. Most of the items on the scale recorded correlations above .3 on the correlation matrix and hence suitable for factor analysis (Pallant, 2011). The Bartlett's test of sphericity was significant ( $\chi^2_{(136)} = 1852.235, p = .000$ ) and KMO= .943 confirmed adequacy of sampling for analysis. Two components had eigenvalues over the Kaiser's criterion of 1 with both combining for 65% of variance. Factor rotation elicited the presence of a simple structure of the factor loadings of the items (see Table 6. below).

**Table 6: Summary of the Exploratory Factor Analysis of Safety Behaviour Scale**

ITEMS	Component	
	1	2
Encourage co-workers to be safe	.854	
Report safety problems to supervisor	.853	
Keep my work area clean	.841	
Assist others to make sure they perform work safely	.801	
Correct safety problems to ensure accident do not occur	.781	
Keep work equipment safe	.780	
Encourage other to get involved in safety issues	.762	
Take action to stop safety violations	.734	
Handle situations as if there is a possibility of accident	.727	
Wear safety equipment	.725	
Explain to other workers that you will report safety violations	.723	
Follow all safety procedures	.681	
Try to change the way job is done to make it safer	.509	
Attend non-mandatory safety training	.443	
Take shortcuts to safe working behaviours		.902
Overlook safety procedures		.736
Do not follow safety rules I think is unnecessary		.733
<i>% of variance</i>	46.897	10.603

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

#### **4.4 Correlation matrix of variables**

Intercorrelations among, predictor, mediator, moderator and criterion variables were computed. The Inter-correlation matrix indicates the relationships among the study variables was analysed using the Pearson Product Moment Correlation Coefficients and the results are presented in Table 7.

Table 7: Bivariate Correlation of the Relationship between, Independent Variables and Dependent variable (N=173)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>1 Workplace incivility</b>	-												
<b>2 Co-worker incivility</b>	.94**	-											
<b>3 Supervisor incivility</b>	.94**	.77**	-										
<b>4 Ethical leadership</b>	-.46**	.46**	-.42**	-									
<b>5 Safety climate</b>	-.57**	-.52**	-.52**	.52**	-								
<b>6 Safety behaviour</b>	-.60**	-.57**	-.56**	.44**	.62**	-							
<b>7 Safety compliance</b>	-.56**	-.52**	-.54**	.41**	.61**	.97**	-						
<b>8 Safety participation</b>	-.60**	-.59**	-.53**	.44**	.54**	.93**	.81**	-					
<b>9 Sex</b>	.092	.083	.091	-.181*	-.071	-.035	-.015	-.066	-				
<b>10 Age</b>	-.001	-.052	.048	.116	-.020	-.062	-.104	.015	-.122	-			
<b>11 Marital status</b>	.010	.023	-.002	-.087	-.097	-.125	-.159*	-.055	.004	.503**	-		
<b>12 Level of education</b>	-.262**	-.283**	-.211**	.163*	.244**	.034	.020	.053	.037	.220**	.127	-	
<b>13 Tenure</b>	.005	-.046	.053	.012	-.051	.047	-.002	.124	-.272**	.335**	.291**	.036	-

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

The above table (7) is a representation of the Pearson Product Moment Correlations for all the variables employed in the study (predictors and criterion).

The table show that all variables where significantly correlated with each other. Different scholar suggests diverse interpretations; however according to Cohen (1988, pp. 79–81) the ensuing guidelines are recommended: small  $r=.10$  to  $.29$ , medium  $r=.30$  to  $.49$ , large  $r=.50$  to  $1.0$ . There was a strong negative relationship between co-worker incivility ( $r= -.57, p < .01$ ) and safety behaviour as well as supervisor incivility and safety behaviour ( $r= -.56, p < .01$ ). Ethical leadership was negatively related with workplace incivility ( $r=-.46, p < .01$ ) and positively related and safety behaviour ( $r=.44, p < .01$ ). Also, there was a positive relationship between safety climate and safety behaviour ( $r=.62, p < .01$ ), however there was a strong inverse relationship between safety climate and workplace incivility ( $r=-.57, p < .01$ ).

#### **4.5 Hypothesis Testing**

All assumptions necessary to undertake parametric analysis were met as indicated in the preliminary analysis. Additionally, in the context of regression analysis carried out to test the stated hypotheses, the largest Variance Inflation Factor (VIF) was 2.456 while the least Tolerance value recorded was .691. According to Pallant (2011) VIF values above 10 and very small Tolerance values (less than .10) is suggestive of multicollinearity. The VIF and Tolerance values were therefore suitable and indicate desired correlation among predictors.

**H1:** There will be a significant negative relationship between (i) co-worker incivility and (ii) Supervisor incivility and safety behaviour.

Standard multiple regression on the correlates of safety behaviour was carried out to test this hypothesis. From the analysis (see Table 8. below), co-worker incivility had a

significant negative relationship with safety behaviour ( $\beta = -.35, p < .001$ ). Also as expected supervisor incivility had a significant negative relationship with safety behaviour ( $\beta = -.30, p < .001$ ). This implies that high levels of co-worker incivility are related to lower levels of safety behaviour among employees. Also, employees' safety behaviour decreases the more they experience supervisor workplace incivility. This finding is corroborated by the correlation among these variables (Table 7). Therefore, hypothesis one which states that 'there will be a significant negative relationship between (i) co-worker incivility and safety behaviour and (ii) supervisor incivility and safety behaviour was supported.

Table 8:

Summary of Regression Analysis of co-worker and supervisor incivility as predictors of safety behaviours

Variable	B	S.E	B
Constant	81.656	2.056	
Co-worker incivility	-.637	.177	-.345***
Supervisor incivility	-.52	.168	-.297***

$R^2 = .364, ***p < .001$

**H2:** Co-worker incivility will be a stronger predictor of safety behaviour than supervisor incivility.

In Table 8, standard multiple regression was undertaken to determine the unique significant contribution of each sub-dimensions of incivility (co-worker and supervisor incivility) on safety behaviour. The results indicated a significant model ( $F_{(2, 1170)} = 48.692, p < .001$ ) and accounted for 36% of variance in safety behaviour at the workplace ( $R^2 = .364, \text{Adjusted } R^2 = .357$ ). Co-worker incivility and supervisor incivility were statistically significant, with co-worker incivility recording a higher beta value ( $\beta = -.345, p < .001$ ) than supervisor incivility ( $\beta = -.297, p < .001$ ). Thus co-worker incivility

accounted for more variance in safety behaviour than supervisor incivility. Therefore, of the two variables, co-worker incivility made the largest unique contribution to predicting safety behaviour although supervisor incivility also made a statistically significant contribution. This finding suggests that among workers in this study co-worker incivility was more likely led to poor safety behaviour than supervisor incivility. In view of this, hypothesis 2 which states that ‘co-worker incivility will be a stronger predictor of safety behaviour than supervisor incivility.’ was supported by data.

**H3:** Ethical leadership will moderate the relationship between workplace incivility and safety behaviour.

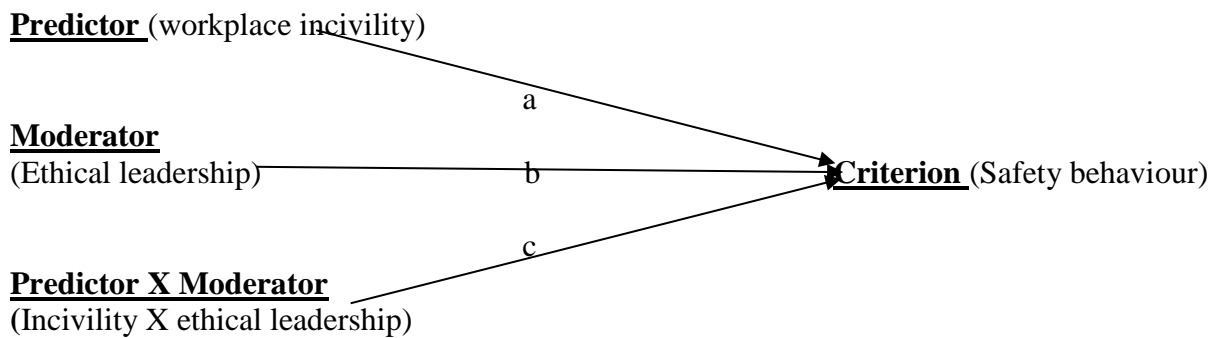
Table 9: Summary of Regression Analysis of ethical leadership as moderator between workplace incivility and safety behaviour

<b>Step</b>		<b>B</b>	<b>S.E</b>	<b>B</b>	<b>P</b>
<b>Step 1</b>					
	Workplace incivility	-.455	.063	-.481	.000
<b>Step 2</b>					
	Workplace incivility	-.455	.062	-.470	.000
	Ethical leadership	.008	.003	.172	.010
<b>Step 3</b>					
	Workplace incivility	.379	.060	.401	.000
	Ethical leadership	.009	.003	.181	.004
	Ethical leadership * incivility	.053	.011	.307	.000

For step 1,  $R^2 = .232$ , adjusted  $R^2 = .227$ ; for step 2,  $R^2 = .261$ , adjusted  $R^2 = .253$ ,  $\Delta R^2 = .030$ ; for step 3,  $R^2 = .351$ , adjusted  $R^2 = .124$ ,  $\Delta R^2 = .090$ ,  $***p < .001$

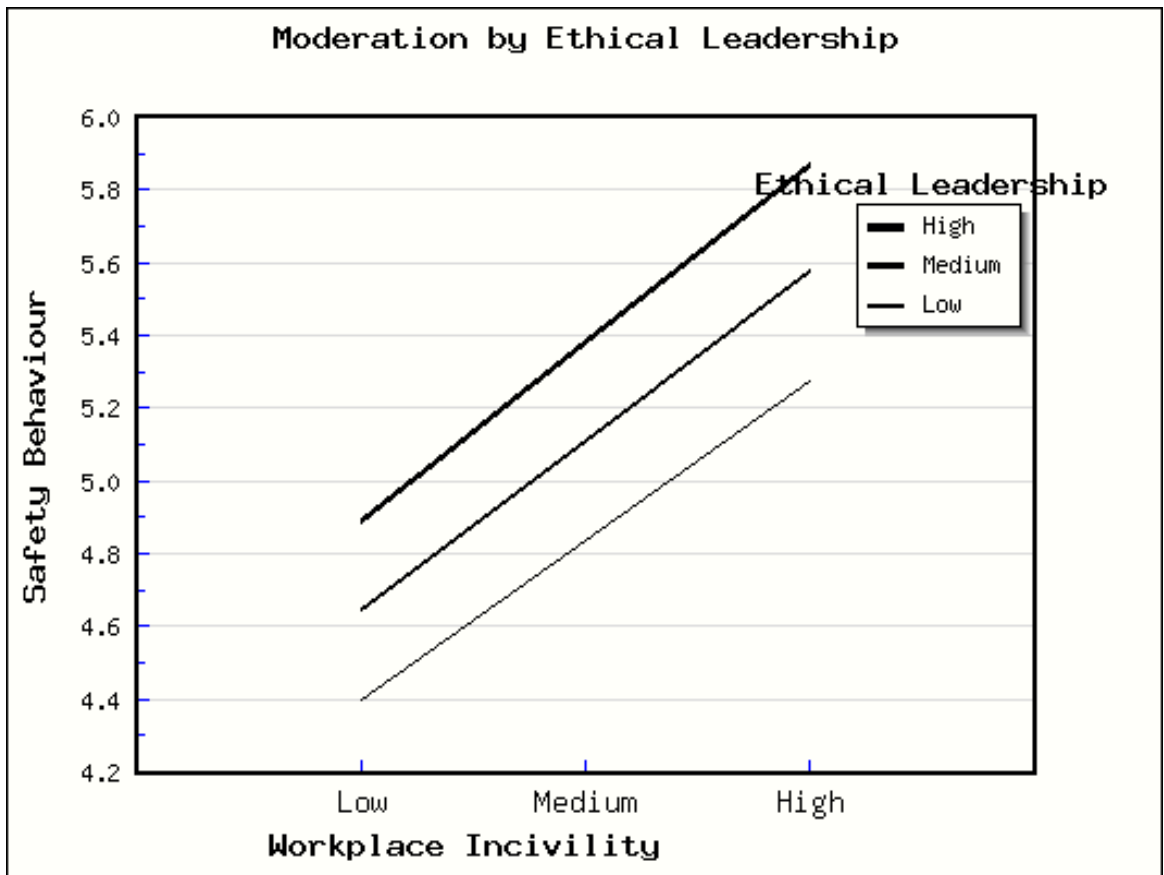
Hierarchical multiple regression based on procedures advanced by Baron and Kenny (1986) was used to test the moderating role of ethical leadership in the relationship between workplace incivility and safety behaviour. As indicated by Baron and Kenny (1986), a typical model for showing moderating effect from both correlational and

experimental perspectives is conceivable by means of a causal path analysis. This is summarized in Figure 2 where three causal paths are fed into the dependent variable (safety behaviour); the influence of workplace incivility as a predictor (path a), the influence of ethical leadership as a moderator (path b) and the interaction of the two (path c) on safety behaviour. ‘The moderator hypothesis is supported if the interaction (path c) is significant’ (Baron & Kenny, 1986; p. 1174). Also in the case of the interaction term, the predictor and moderating variables were centred so as to reduce the variables to a common unit or a mean of zero (Aiken & West, 1991).



**Figure 2: Model for moderation with study variables**

From Table 9, results indicated that workplace incivility ( $\beta = 0.481, p < 0.01$ ) and ethical leadership ( $\beta = .172, p < 0.01$ ) had a significant relation to safety behaviour in step 1 and step 2 respectively. Interaction of ethical leadership and workplace incivility (step 3) had a significant influence on safety behaviour, explaining 9% of the variance ( $\Delta R^2 = 0.09, \beta = .053, p < 0.01$ ). Thus, ethical leadership moderated the relationship between workplace incivility and safety behaviour. In view of this, hypothesis 3 which states that ‘ethical leadership will moderate the relationship between workplace incivility and safety behaviour’ was supported.



**Figure 3: The interaction effect of ethical leadership and workplace incivility on safety behaviour**

The graph indicates that high ethical leadership strengthens the relationship between workplace incivility and safety behaviour. As ethical leadership increases, there is a reduction in workplace incivility and an increase in safety behaviour.

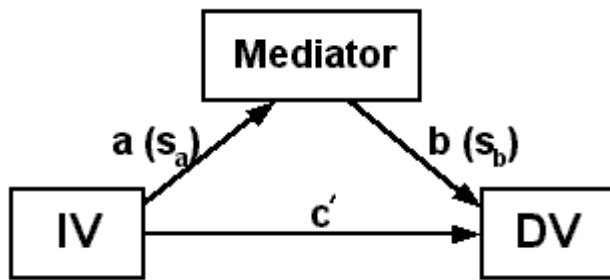
**H4:** Safety climate will mediate the relationship between workplace incivility and safety behaviour.

Table 10: Summary of Regression Analysis of safety climate as mediator between incivility and safety behaviour

Step	Predictor	Criterion	B	S.E	B
1	Workplace incivility	Safety behaviour	-.577	.58	-.603***
2	Workplace incivility	Safety climate	-.204	.023	-.556***
3	Workplace incivility	Safety behaviour	-.362	.064	-.378***
	Safety climate		1.053	.174	.404***

For step 1,  $R^2 = .364$ , adjusted  $R^2 = .360$ ; for step 2,  $R^2 = .309$ , adjusted  $R^2 = .305$ ,  $\Delta R^2 = .309$ ; for step 3,  $R^2 = .477$ , adjusted  $R^2 = .470$ ,  $\Delta R^2 = .113$ , \*\*\* $p < .001$

The regression was analysed using the three-step regression model for conducting mediating effect espoused by Baron and Kenny (1986). First, workplace incivility must be shown to predict safety behaviour. Secondly, workplace incivility must be shown to predict safety climate in the multiple regression model. Thirdly is the multiple regression model predicting DV (safety behaviour) from the IV (workplace incivility) and the mediator (safety climate). The relationship between workplace incivility and safety behaviour must be significantly reduced or eliminated when safety climate is entered in the statistical model (Dudley, Benuzillo & Carrico, 2004). To confirm the presence of mediation the Sobel test (Preacher & Hayes, 2004) was conducted. Four values from the multiple regressions are used in the sobel test. These are the path coefficient ( $a$ ) = “raw (unstandardized) regression coefficient for the relationship between the IV and the mediator”.  $S_a$  = “standard error of  $a$ ”.  $b$  = “raw coefficient for the relationship between the mediator and the DV”,  $S_b$  = “standard error of  $b$ ”.



**Figure 4: Path diagram of the mediating relationship among the variables**

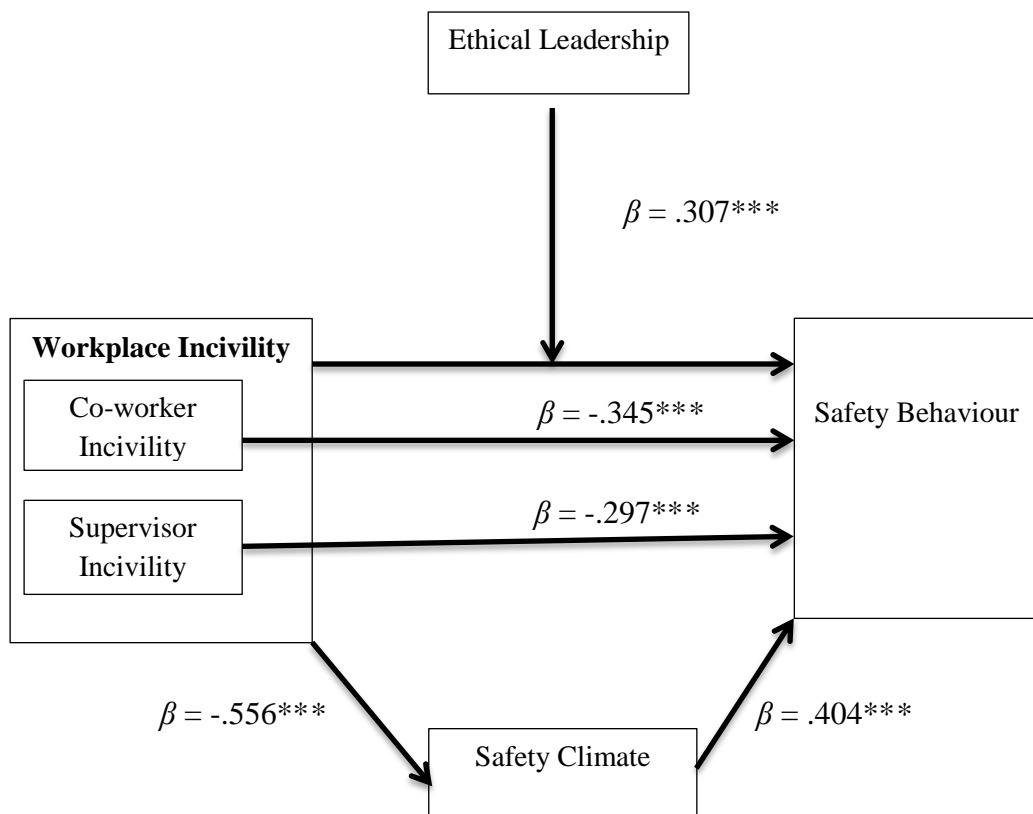
From the Table 9, results from the first step after safety behaviour was regressed on workplace incivility was found to be significant ( $\beta = -.60, p < .001$ ). At the second step workplace incivility predicted safety climate ( $\beta = -.56, p < .001$ ). Consequently, analysis proceeded to the third step and after controlling the effect of safety climate (mediator), workplace incivility remained a significant independent predictor of safety behaviour but with a substantial reduction in the standardized regression coefficient ( $\beta = -.38, p < .001$ ). The entire model was also significant and accounted for 47% of variance in safety behaviour (adjusted  $R^2 = .47, F_{(2, 170)} = 77.39, p < .001$ ). Sobel test for mediation analysis using the parameters ( $a = -2.04, S_a = .023, b = 1.053, S_b = .174$ ) indicated that the partial mediation was significant ( $Z = -5.00, p < .001$ ). In view of this, hypothesis 4 which states that ‘safety climate will mediate the relationship between workplace incivility and safety behaviour’ was supported.

#### **4.6 Summary of Main Findings**

1. Co-worker and supervisor incivility had significant negative relationships with safety behaviour.

2. Co-worker incivility was a stronger predictor of safety behaviour than supervisor incivility.
3. Ethical leadership moderated the relationship between workplace incivility and safety behaviours
4. Safety climate partially mediated the relationship between workplace incivility and safety behaviours.

#### 4.7 Observed Model



**Figure 5:** Model of the observed relationship between the predictor variables, mediator, mediator and criterion variable

#### **4.7.1 Description of the Observed model**

The observed model indicates that the independent variables (co-worker incivility and supervisor incivility) are significantly related to the dependent variable (safety behaviour). Furthermore, ethical leadership moderated the relationship between workplace incivility and safety behaviour. Also safety climate mediated the relationship between workplace incivility and safety behaviour.

## CHAPTER FIVE

### DISCUSSION

#### 5.1 Introduction

Occupational safety is important area of interest and concern for manufacturing industries. The present study draws on the social learning and social exchange theories to explore the relationship that exists between workplace incivility (experienced from supervisors and co-workers) and safety behaviour. The moderating role of ethical leadership in the relationship between workplace incivility and safety behaviour was explored. The study also investigated safety climate as a mediator in the relationship between workplace incivility and safety behaviour. In light of previous literature and theory, the findings of the study are discussed. The results of the study and its implication on theory and practice are expatiated. Also limitations and recommendations for future studies are highlighted.

#### 5.2 Discussion of Findings

##### 5.2.1 *Relationship between workplace incivility and safety behaviour*

The first hypothesis examined whether workplace incivility from co-workers and supervisors had a significant negative relationship with safety behaviour. The results indicate that experienced incivility (co-worker incivility and supervisor incivility) had a significant negative relationship with safety behaviour. This implies that higher experiences of incivility are related to lower levels of safety behaviour among manufacturing workers. The more workers experience workplace incivility from their co-workers, the more likely their level of safety behaviour will decrease. Similarly, the more workers experience incivility from their supervisors, the lower their level of safety behaviour.

This finding is corroborated by the social exchange theory (Blau, 1964; Cropanzano & Mitchell, 2005), which espouses that; social relationships are created through subjective

cost-benefit analysis and that exchange relationship typically flourishes on the idea that benefits will be reciprocated. Therefore, if workers are not dealt with in an appropriate manner, they may be influenced not to fully participate in safety activities such as assisting colleagues to make sure that work is performed safely. They may be propelled to also work less collaboratively with other others at the workplace. There is a resultant tendency that employees in high risk work settings such as the manufacturing sector may not abide with certain important safety measures required of. This inevitably raises security concerns bearing in mind the nature of work environment which is inherently above average risk for employees' injuries. Also, when faced with heightened incivility from supervisors, workers may be resentful and drag their feet in the performance of their duties. Not collaborating or fully executing their mundane or routine safety duties as a result of umbrage from supervisors and the organisation as a whole can affect the overall safety at work.

The result also gives credence to the information that even though usually overlooked, workplace incivility is prevalent amongst workers in Ghana and the manufacturing sector is not exception (Ohemeng & Adu-Brobbey, 2018). It is one of the highly persistent forms of asocial behaviours in the workplace (Cortina, 2008). It is a deep-seated organisational anomaly which does not only lead to negative organisational outcomes such as turnover intentions, absenteeism, low worker motivation and poor self-esteem and wellbeing but could also adversely affect employees' safety attitude, participation and compliance to safety measures at work. Thus, the finding indicates that experienced incivility is a social organisational phenomenon which can act as antecedent or trigger of safety behaviour. The result provides evidence that incivility is an essential variable to contemplate when assessing safety behaviours of employees. Workplace incivility can lead to decline in job performance (Porath & Pearson, 2013). Workplace incivility has the tendency of leading to negative work outcomes such as low job satisfaction, poor psychological and physical well-being

(Schilpzand et al., 2016). Poor physical and mental health may adversely impact on the necessary safety activities workers need to perform on the job as well as complying with all precautionary safety measures. It reduces helping behaviour. This happens when workers decline to assist colleagues making work less safe and secure.

Most manufacturing industries in developing countries like Ghana lack modern and safe equipment needed for production and work (Rankin et al., 2002). The manufacturing sector is characterized by high-strain jobs having high job demands (Baillien, De Cuyper, & De Witte, 2011; Notelaers et al., 2012). Due to high job demands, high unemployment rate, financial and economic challenges, most industries tend to offer poor employment terms to workers which creating high sense of job insecurity. Job insecurity is associated to incivility at work (Torkelson, Holm, Backstrom & Schad, 2016). This may be associated to experiences of incivility experienced from co-workers and supervisors among manufacturing workers with concomitant effects on safety practices and behaviour. Poor safety behaviour has the tendency of reducing the overall sense of safety at the workplace.

In furtherance the result of this present study is consistent other studies in the extant literature. Sabbath et al., (2014) reported that exposure to workplace abuse may be a risk factor for poor workplace safety and injuries among workers. McGonagle et al., (2016) affirms that civility norms rather facilitated and improved safety participation and compliance. Demsky (2015) report that incivility and workplace aggression was related with low safety compliance and increase work related accidents or injuries. Besides workplace incivility also can be characterized as workplace stressors (Barling, 1996; Rogers & Kelloway, 1997). Workplace stressors reportedly lead to a decline in safety at the workplace. Specifically, workplace stressors in the form of incivility may meddle with workers' capacity

to safety execute work related activities due to preoccupation with the incident, interruption or an emotional reaction (Mandler, 1979) may lessen the available attentional resources.

### ***5.2.2 Sources or dimensions of incivility and safety behaviour***

The second hypothesis examined the sub dimensions of workplace incivility by assessing which one will be a stronger predictor of safety behaviour. Results from the data revealed that co-worker incivility made the strongest unique contribution and was the stronger predictor of safety behaviour among manufacturing workers. This finding implies that the perpetuation of safety behaviour at work is more defined by experienced incivility from co-workers compared to incivility experienced from supervisors.

This outcome is in agreement with earlier studies in the literature. Leiter, Day, Oore and Laschinger (2012) reported that even after interventions where carried out, of co-worker incivility had a higher influence on workers than supervisor incivility. A study by Reio and Sanders-Reio (2010) investigated the frequency with which employees were targets of supervisor and co-worker incivility and results indicated that even though both supervisor and co-worker incivility were negative predictors of safety, co-worker incivility was found to be more influential in predicting safety engagement among workers. Gallus et al. (2014) reports a similar finding. The direct relationship to safety behaviour was apparent for both co-worker incivility and supervisor incivility even though the former was influential. This affirms that incivility also commence at the top of organisations and spreads downwards (Pearson & Porath, 2013).

Social relations and interaction may account for this finding (Lee & Yu, 2011). The ubiquitous and frequent interaction among co-workers invariably may lead to higher reports and experiences incivility. Uncivil behaviours at the workplace within persistent co-worker interactions could be reciprocated with more extreme or severe types of negativity

(Andersson & Pearson, 1999). For workers in high risk jobs, this could easily tread into how workplace safety issue is handled. In the manufacturing sector, production worker usually work together at the same production units for longer periods of time. Work is largely routine and monotonous. At other times, these workers are required to work in groups or teams meaning they have to directly interact and inter-depend on each other to ensure that work is done effectively and efficiently (Forsyth, 2006). This may explain why co-workers have higher impact than supervisors due to the higher degree of interaction and identification with follower colleagues (Torkelson, Holm, Backbrom & Schad, 2016). An empirical research by Ferguson and Barry (2011) demonstrated that people were likely to behave in deviant ways if they had knowledge about deviant acts by their contemporaries, especially in highly cohesive groups. This suggests that co-workers simulate the conducts of their colleagues thus increasing the propensity of them behaving in a like manner. This observation places premium on co-workers' behaviours for instigating incivility and thus could be emphasized when making interventions for workplace incivility because over time it can intensify to more aggressive forms of behaviour and poor safety standards at the workplace (Pearson et al., 2010, McGonagle et al., 2016). In line with incivility spiral (Andersson & Pearson, 1999), scholars are of the view that incivility may ensue as a reprisal for being a target of incivility from co-workers (Greenberg, 2010; Jex et al., 2010). Besides, the overlap of people who reportedly rate themselves as both targets and perpetrators may highlight the notion that incivilities are reciprocated among co-workers (Gallus et al., 2014).

Furthermore, the social exchange theory and reciprocity model helps to explain this finding (Parzefall & Salin, 2010). The processes of reciprocal interactions and the infectious nature of the social process of workplace incivility could possibly clarify the association between executing incivility, experiencing co-workers' incivility and not partaking in safety behaviours. Co-worker incivility provoke victims to engage in more withdrawal behaviours

(Lee and Spector, 2006) leading to low safety participation and non-compliance to safety measures.

However experienced incivility from supervisors cannot be discounted as it makes a significant contribution in this study. This is in line with other studies highlighting the impact of supervisor incivility leading to negative work-related outcomes (Nitzsche, Ribeiro & Laneiro, 2018). This phenomenon may be explained by social learning theory in that employees are greatly influenced by their supervisors due to the power supervisors hold to hand out rewards and punishments (Bandura, 1986). As a result, when faced with incivility from their supervisors employees may be more compelled to endure tolerate and accommodate it due to the leverage supervisors may have on them. This view may affirm why co-worker incivility comparatively has a stronger impact on adverse work-related safety practices.

### ***5.2.3 Ethical Leadership as Moderator between Workplace Incivility and Safety Behaviour***

The third hypothesis investigated if ethical leadership will moderate the relationship between workplace incivility and safety behaviour. The result based on the data indicated that ethical leadership moderated the relationship between workplace incivility and safety behaviour. This implies that ethical leadership significantly strengthens the relationship between workplace incivility and safety behaviour. As ethical leadership increases, workplace incivility declines leading to enhanced safety behaviour. Again when ethical leadership is low, there is an increase in workplace incivility which is related to poor safety behaviour among manufacturing workers. Thus ethical leadership helps to put a check on incivility at work thereby mitigating any negative outcomes. Employees who experience lower level unsatisfactory conducts may show forth appropriate safety behaviours.

The social learning theory helps explain this finding. According to the theory people learn suitable behaviour from legitimate models or mentors (Bandura, 1986). Because of the status they hold in the organisation leaders assume legitimate roles. As ethical leaders reward ethical behaviours and discipline unethical ones, they influence their personnel to put up with satisfactory conducts. Ethical leadership helps in developing norms for acceptable behaviour and thus has a negative effect on incivility while promoting safety behaviours. Therefore, rude and condescending behaviours are not encouraged among workers. Ethical leader thus creates good ethical climates which discourages negative workplace attitude. Ethical leadership rather creates vibrant work environment which may enhance safety at the workplace. Ethical leadership encourage employees to uphold safety behaviours and standards. They encourage workers to exhibit behaviours such as working collaboratively, developing environments that support safety and attending safety meeting as well as complying with safety measures at work. Also, leaders who personally model safety behaviour by investing, crafting and adhering to safety standards and regulation similarly influence employee safety behaviours (Clarke, 2013; Martínez-Córcoles et al., 2011).

This result is in accordance with prior studies. For instance Taylor and Pattie (2014) observed that workers who encounter ethical leaders are less likely to indulge in aberrant or unethical practices at work. Similarly, a study by Porath, Garbasi & Schorch (2015) investigated the effects of civility, leadership and performance in a manufacturing firm. The researcher reported that leadership mediated civility (lack of incivility) among worker and increases performance (in this case safety participation and safety compliance) at work. Mayer, Kuenzi and Greenbaum (2011) affirmed the association between ethical leadership and employees' misconduct via ethical climate. In another study Khan, Ahmad & Ilyas (2018) after examining the impact of ethical leadership on safety performance observed a significant relationship. Chughtai (2015) opined that ethical leadership impact on safety

participation and compliance. Therefore, appropriate leadership in the form of ethical leadership is negatively related to incivility and positively alter employees' attitude towards safety behaviour.

#### ***5.2.4 Safety Climate as Mediator between Workplace Incivility and Safety Behaviour***

The fourth hypothesis examined safety climate as a mediator between workplace incivility and safety behaviour. The result indicated that safety climate partially mediated the relationship between workplace incivility and safety behaviour. This implies that, safety climate indirectly links workplace incivility and safety behaviour. Thus experiences of incivility create a negative safety climate at work which in turn leads to poor safety behaviour at work. The perception of workers towards safety at the workplace helps explain the relationship between experienced workplace incivility and safety behaviour among manufacturing workers.

Most manufacturing workers operate in hazardous conditions. In Ghana and most emerging economies, many manufacturing industries are unable to invest in modern and safe equipment (Rankin et al., 2002). This may inadvertently affect and cloud the perception of manufacturing workers by giving them a negative perception of the overall safety about the work they do (Howard Quartey, 2017). Based on the social exchange theory, norm of reciprocity are formed between workers at the workplace. Hence, if workers experience uncivil acts, it feed into their perception of safety in the organisation. Poor perception of safety standard in the organisation has the propensity of affecting the safety behaviour of workers (DeJoy et al., 2010).

The perception workers have towards the overall safety at their workplace affects their relationship, attitude and behaviour towards individuals they work with and the organisation as a whole. In the existent literature, safety climate is consistently linked to safety behaviours (Clarke, 2010; Christian et al., 2009; Pousette et al., 2008). This

observation is corroborated by the findings of this study. McGonagle, Walsh, Kath, and Morrow (2014) examined perceptions of civility norms to perceptions of safety climate and safety outcomes. These researchers observed and reported that there is an indirect relation between civility and safety behaviours of workers and injuries through different facets of safety climate. In another study, Amponsah-Tawiah and Adu (2016) asserts that when there is a positive perception of employees towards safety communication, safety systems and training, they appear to comply with safety standards and processes than willingly participate in safety activities. Similarly, Tholen, Pousette and Torner (2013) reported that safe environment predicts the display of safety behaviour and therefore assert that an appreciation the psychological and social conditions at work can affect the perception of workers which can translate into positive safety attitudes and behaviours.

### **5.3 Theoretical and Practical Implications of Findings**

The study offers valued evidence with regard to the impact of situational (work environment) factors, such as, the experiences of workplace incivility on organizational safety behaviour. Theoretically, workplace incivility has been associated to adverse outcomes, including attitudes, behaviours, and wellbeing, to targets at the receiving end (Hershcovis & Barling, 2010; Jiang, Probst, Benson, Byrd, 2018). Nevertheless, it has received scant empirical attention. The current study explored the two key facets of experienced workplace incivility (co-worker and supervisor) and how it negatively influences employees' safety related performance. It was affirmed that as predicted workplace incivility predicted safety behaviour among high risk workers specifically manufacturing workers. Therefore, the study makes a contribution to the nascent incivility literature by exploring workplace safety performance.

Also, another gap in research addressed by the present study is the delineation of workplace incivility in terms of incivility experienced from co-workers and supervisors which conventionally is treated as composite factor. The extant literature provides contradictory reports, however the present study makes a meaningful contribution to the discussion by highlighting the magnitude of negative effects of co-worker incivility at the workplace. The study also empirically examined the influence of ethical leadership which has been classified as a positive leader behaviour (Brown & Trevino, 2006; Nahrgang et al, 2011). Evidence is provided on how appropriate and effective leadership such as ethical leadership can lessen negative organisational relationship among employees and on the other hand improve the overall safety at the workplace.

The study also makes an important contribution to literature by examining organisational relationships and its effects on the employees' safety in the Ghanaian setting. Studies carried out in the area incivility have predominantly been carried out in western organisational context. However within the confines of the Ghanaian work environment the study examined the relationship between incivility and safety behaviours among workers specifically those in high risk occupations such as the manufacturing sector. The finding of the study thus provides additional insights from the view of a relatively collectivist and less developed country such as Ghana.

Practically, based on the finding of the present study and extant literature, there is an indication of prevalence of workplace incivility among workers of which the Ghanaian manufacturing worker is not excluded. Workers are likely to experience less forms of aggressive behaviours albeit with definite negative consequences. Experiences of verbal aggression for instance may be considered as 'a normal part of organisational life' (Schat & Frone, 2011, p. 34). Therefore the role played by leadership and management is

pertinent. Leaders who espouse ethical standards and instil discipline can create ethical climates and good work conditions suitable to all individuals, groups and the organisation in general.

The study has various implications for safety practitioners attempting to recognize systems through which they can enhance safety at the workplace. It has been reported that encouragingly half of occupational accidents can be easily prevented and only two per cent cannot be prevented (Altunkaynak, 2018). As specified, the extent to which employees perceived safety at the workplace affected their safety performances. Long standing studies affirm that management commitment to safety is a central mechanism which defines safety climate (Hofmann et al., 2003; Mullen and Kelloway, 2009). As such organisational management in Ghana can provide positive safety climate by prioritising commitment to safety through endeavours such as direct involvement in safety programmes, high consideration for safety when drawing budget and during meetings, safety training and showing concern for the safety of workers.

Furthermore, in order to enhance safety at work, organisations have to take strenuous steps to develop supportive organisational climate (Sorensen et al., 2011) where incivility and mistreatment emanating from supervisors and co-workers is not permissible (Yang & Caughlin, 2017). By building supportive work climates, management of Ghanaian organisations especially manufacturing companies can enhance workplace safety as well as increase motivation and job satisfaction, organisational commitment and over performance among employees (DeJoy et al., 2010; Humphrey Nahrgang & Morgeson, 2007). Basically, this could spell out a return on investment due to lower accidents, compensations, low turnover intentions, absenteeism and increased productivity in general. It is noteworthy that

endeavours to impact the convictions and attitudes of employees and persuade them to participate in safe work practices may come up short if organisations are not supportive.

#### **5.4 Limitation and Recommendations for Research**

Although the present study makes significant contributions, some limitations are identified and highlighted appropriately. One limitation is associated with the use of non-probability (convenience sampling) technique. Therefore, generalisation of the study's findings must be done carefully. As the sample was taken from the manufacturing sector, the outcomes of the study are not necessarily generalizable to other sectors and interpretations must be guided by this limitation. It is thus recommended that imminent studies empirically explore the key relationship identified in other sectors especially high-risk jobs. Secondly, causal interferences cannot be made between the predictors and outcomes as a result of correlational nature of the study. Because all study variables were examined at the same time, it will be prudent to carry out longitudinal studies to thoroughly assess the causal ordering of study constructs.

Also, the dependence on self-reported instruments to measure the various constructs of the study comes poses some limitations. This could result in bias in response as employees may feel come to the notices of their superiors. However, an observation by Crampton and Wagner (1994) based on meta-analytic study suggests that while this issue keeps on being referred to consistently, the extent of its distortions may be overemphasized. Nonetheless, in order to practically reduce socially desirable responses, complete anonymity was assured for all respondents.

Lastly, the study did not account for individual attributes (such as personality traits), which can be related to some of the study's variables such as incivility (Balducci et al.,

2011). Therefore, future studies could aim at examining both situational and role of victims' characteristics when assessing incivility at the workplace.

## **5.5 Conclusion**

The study explored the relationship between workplace incivility and safety behaviour among manufacturing workers in Accra. Also, the moderating role of ethical leadership and mediating effect of safety climate were examined. Using the social exchange theory (Blau, 1964; Cropanzano & Mitchell, 2005) and social learning theory (Bandura, 1986) as the theoretical underpinning for the study, the relationship between the study variables were evaluated and discussed.

The study was carried out among 173 operational line workers from among five different manufacturing firms. Findings from the study indicated that experienced incivility from co-worker as well as experienced incivility from supervisor was significant and negatively related to safety behaviour. Also, between the two dimensions of incivility explored, co-worker incivility made the strong impact in predicting safety behaviour among manufacturing worker. Ethical leadership was found to be a significant moderator while safety climate partially mediated the relationship between workplace incivility and safety behaviour. This indicates the useful role of leadership and the need for management to espouse positive leader behaviour by adhering to ethical dictates and standards. Similarly, positive perception of safety at the workplace is found to improve the overall ambience and safety at the workplace. Hence, high risk organisations such as manufacturing sector should pay particular attention to ever-present but usually overlooked workplace counterproductive behaviour and build positive work climates to stimulate safe and sound work environments and behaviour.

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## APPENDICES

### APPENDIX 1: ETHICAL CLEARANCE



## UNIVERSITY OF GHANA

ETHICS COMMITTEE FOR THE HUMANITIES (ECH)

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

My Ref. No.....

28<sup>th</sup> March, 2019

Mr. Kofi Nkansah- Sarkodie  
Department of Psychology  
University of Ghana  
Legon

Dear Mr Nkansah-Sarkodie,

**ECH 032/18-19: WORKPLACE INCIVILITY, ETHICAL LEADERSHIP AND OCCUPATIONAL SAFETY. A STUDY OF MANUFACTURING WORKERS IN ACCRA.**

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: 28/03/20  
On Agenda for: Initial submission  
Date of Submission: 19/11/18  
ECH Action: Approved  
Reporting: Bi-Annually

Please accept my congratulations.

Yours Sincerely,

Prof. C. Charles Mate-Kole.  
ECH Vice Chair



Cc: Dr. Inusah Abdul-Nasiru, Department of Psychology, UG.  
Dr. Francis Annor, Department of Psychology, UG.

Tel: +233-303933866

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

## APPENDIX 2: INFORMED CONSENT

UNIVERSITY OF GHANA



Official Use only  
Protocol number

**Ethics Committee for Humanities (ECH)**

### PROTOCOL CONSENT FORM

#### Section A- BACKGROUND INFORMATION

Title of Study:	Workplace Incivility, Ethical Leadership and Occupational Safety. A study among manufacturing workers in Accra
Principal Investigator:	Kofi Nkansah-Sarkodie
Certified Protocol Number	ECH 032/18-19

#### Section B- CONSENT TO PARTICIPATE IN RESEARCH

##### **General Information about Research**

The purpose of this academic research is to examine the relationship between workplace incivility, ethical leadership and occupational safety among manufacturing workers. The study seeks to investigate the moderating effects of ethical leadership in the relationship between workers' experiences of workplace incivility and perceived safety behaviours. This study will also empirically examine incivility as source of safety behaviour and accidents at the workplace.

The study will require that you complete a questionnaire which will include questions about your job, work environment and personal behaviour. Participants are expected to fill out the questionnaire within twenty (20) minutes. The Participants are required to follow instructions on the questionnaire then give their responses.

##### **Benefits/Risks of the study**

No physical, social or psychological harm will be caused to any participant. It will only take a few working time of the participants.

The study has no known benefits to you as result of your participation. However it is of the hope that the study will increase awareness of health and safety in the organization and help managers to identify the weaknesses of various strategies that are adopted to enhance employee wellbeing and safety standards.

### **Confidentiality**

Information provided by participants will be protected and kept confidential. Any report made public will not include any information that will make it possible to identify you. Further participants will be assured that findings from the research solely for academic purpose and hence will not compromise their job security.

### **Compensation**

Research participants will not be compensated for their participation in the study. However they will be acknowledged for their time, support and cooperation throughout the study

### **Withdrawal from Study**

Participation in this study is voluntary. Participants have the right to withdraw from the study at any given time. You will not be penalized in any way should you decide not to participate or withdraw from the study.

### **Contact for Additional Information**

You can contact the following for answers to any questions about the research

Kofi Nkansah-Sarkodie. Department of Psychology, University of Ghana.

P.O. Box SE 1988, Suame-Kumasi. Contact: 0540777915, email: kofisarks@gmail.com

If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at [ech@isser.edu.gh](mailto:ech@isser.edu.gh) / [ech@ug.edu.gh](mailto:ech@ug.edu.gh) or 00233- 303-933-866.

### **Section C- PARTICIPANT AGREEMENT**

**"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."**

---

Name of Participant

---

Signature or mark of Participant

Date

**If participant cannot read and or understand the form themselves, a witness must sign here:**

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

---

Name of witness

---

Signature of witness / Mark

Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

---

Name of Person who Obtained Consent

---

Signature of Person Who Obtained Consent

Date

## APPENDIX 3: INTRODUCTORY LETTER



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

PSYC 2/33/03

February 8, 2019

Ref. No.....

TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION  
MR. KOFI NKANSAH-SARKODIE- ID NO: 10307358

The above-named student is an MPhil Industrial and Organizational Psychology student in the University of Ghana.

In partial fulfillment of the requirement for the award of MPhil degree, Mr. Kofi Nkansah-Sarkodie has to write and submit an original thesis. He has selected the topic: **“Workplace Incivility, Ethical Leadership and Occupational Safety. A Study among Manufacturing Workers in Accra”**.

He has received approval from the Department of Psychology Graduate Studies Committee and the Ethics Committee for the Humanities, University of Ghana.

To enable him collect data for his work he would need to administer questionnaires and/or conduct interviews. He has selected Roofing and Aluminum Processing Companies in Accra.

Any assistance you may give him would be greatly appreciated.

Yours sincerely,

Prof. Joseph Osafo  
(Head of Department)

COLLEGE OF HUMANITIES

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

• Telephone: +233 (0) 289 550 463

• Email: Psychology@ug.edu.gh

• Website: www.ug.edu.gh



## **SECTION B: Workplace Incivility Scale**

### **INSTRUCTION**

In the past 12 MONTHS...How often have COWORKERS performed the following behaviours?

Never = **1**

Rarely (once or twice in the past 12 months) = **2**

Always (daily) = **5**

Sometimes (monthly) = **3**

Usually (weekly) = **4**

<b>No</b>	<b>Items</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Usually</b>	<b>Always</b>
1.	Put you down or was scornful to you	1	2	3	4	5
2.	Paid little attention to your statement or showed little interest in your opinion	1	2	3	4	5
3.	Made demeaning or derogatory remarks about you	1	2	3	4	5
4.	Addressed you in unprofessional terms, either publicly or privately	1	2	3	4	5
5.	Ignored or excluded you from professional fellowship/friendship	1	2	3	4	5
6.	Doubted your judgment on a matter over which you have responsibility	1	2	3	4	5
7.	Made unwanted attempts to draw you into a discussion of personal matters	1	2	3	4	5

## INSTRUCTION

In the past 12 MONTHS...How often have SUPERVISOR(S) performed the following behaviours?

Never = **1**

Rarely (once or twice in the past 12 months) = **2**

Sometimes (monthly) = **3**

Usually (weekly) = **4**

Always (daily) = **5**

No	Items	Never	Rarely	Sometimes	Usually	Always
1.	Put you down or was scornful to you	1	2	3	4	5
2.	Paid little attention to your statement or showed little interest in your opinion	1	2	3	4	5
3.	Made demeaning or derogatory remarks about you	1	2	3	4	5
4.	Addressed you in unprofessional terms, either publicly or privately	1	2	3	4	5
5.	Ignored or excluded you from professional fellowship/friendship	1	2	3	4	5
6.	Doubted your judgment on a matter over which you have responsibility	1	2	3	4	5
7.	Made unwanted attempts to draw you into a discussion of personal matters	1	2	3	4	5

## SECTION C: Ethical leadership scale

### INSTRUCTION

Please indicate your agreement with the following statements by circling the number that applies to you.

Strongly Disagree (SD) = 1

Disagree (D) = 2

Undecided (U) = 3

Agree (A) = 4

Strongly Agree (SA) = 5

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1.	My leader, conducts his/her personal life in an ethical manner.	1	2	3	4	5
2.	My leader, defines success not just by results but also the way that they are obtained.	1	2	3	4	5
3.	My leader, listens to what employees have to say.	1	2	3	4	5
4.	My leader, disciplines employees who violate ethical standards.	1	2	3	4	5
5.	My leader, makes fair and balanced decisions.	1	2	3	4	5
6.	My leader, can be trusted.	1	2	3	4	5
7.	My leader, discusses business ethics or values with employees.	1	2	3	4	5
8.	My leader, sets an example of how to do things the right way in terms of ethics.	1	2	3	4	5
9.	My leader, has the best interests	1	2	3	4	5

	of employees in mind.					
10.	My leader, when making decisions, asks "what is the right thing to do?"	1	2	3	4	5

## SECTION D: Safety climate Scale

### INSTRUCTION

Please indicate your agreement with the following statements by circling the number that applies to you.

Strongly Disagree (SD) = **1**

Disagree (D) = **2**

Undecided (U) = **3**

Agree (A) = **4**

Strongly Agree (SA) = **5**

No.	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1.	New employees learn quickly that they are expected to follow good health and safety practices	1	2	3	4	5
2.	Employees are told when they do not follow good health and safety practices.	1	2	3	4	5
3.	Workers and management work together to ensure the safest possible conditions.	1	2	3	4	5
4.	There are no major shortcuts	1	2	3	4	5

	taken when worker health and safety are at stake.					
5.	The health and safety of workers is a high priority with management where I work.	1	2	3	4	5
6.	I feel free to report safety problems where I work.	1	2	3	4	5

## SECTION E: Safety Behaviour Scale

### INSTRUCTION

Please indicate your agreement with the following statements by circling the number that applies to you.

Strongly Disagree (SD) = 1

Disagree (D) = 2

Undecided (U) = 3

Agree (A) = 4

Strongly Agree (SA) = 5

No	Items	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1.	I overlook safety procedures in order to get my job done more quickly	1	2	3	4	5
2.	I follow all safety procedures regardless of the situation I am in	1	2	3	4	5
3.	I handle all situations as if there is a possibility of having an accident	1	2	3	4	5
4.	I wear safety equipment required by practice	1	2	3	4	5
5.	I keep my work area clean	1	2	3	4	5

6.	I encourage my co-workers to be safe	1	2	3	4	5
7.	I keep my work equipment in safe working condition	1	2	3	4	5
8.	I take shortcuts to safe working behaviours in order to get the job done faster	1	2	3	4	5
9.	I do not follow safety rules that I think are unnecessary	1	2	3	4	5
10.	I report safety problems to my supervisor when I see safety problems	1	2	3	4	5
11.	I correct safety problems to ensure accidents will not occur	1	2	3	4	5
12.	Assist others to make sure they perform their work safely	1	2	3	4	5
13.	Explain to other workers that you will report safety violations	1	2	3	4	5
14.	Try to change the way the job is done to make it safer	1	2	3	4	5
15.	Speak up and encourage others to get involved in safety issues	1	2	3	4	5
16.	Take action to stop safety violations in order to protect the well-being of other workers	1	2	3	4	5
17.	Attend non-mandatory safety orientated training	1	2	3	4	5

## APPENDIX 5: RELIABILITY OF SCALES

### Scale: Co-worker Incivility

#### Case Processing Summary

	N	%
Valid	173	99.4
Cases Excluded <sup>a</sup>	1	.6
Total	174	100.0

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

#### Reliability Statistics

Cronbach's Alpha	N of Items
.918	7

### Scale: Supervisor Incivility

#### Case Processing Summary

	N	%
Valid	173	99.4
Cases Excluded <sup>a</sup>	1	.6
Total	174	100.0

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

#### Reliability Statistics

Cronbach's Alpha	N of Items
.933	7

**Scale: Ethical Leadership Scale**

**Case Processing Summary**

	N	%
Valid	173	99.4
Cases Excluded <sup>a</sup>	1	.6
Total	174	100.0

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

**Reliability Statistics**

Cronbach's Alpha	N of Items
.881	10

**Scale: Safety Climate Scale**

**Case Processing Summary**

	N	%
Valid	173	99.4
Cases Excluded <sup>a</sup>	1	.6
Total	174	100.0

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

**Reliability Statistics**

Cronbach's Alpha	N of Items
.797	6

**Scale: Safety Behaviour**

**Case Processing Summary**

		N	%
Cases	Valid	173	99.4
	Excluded <sup>a</sup>	1	.6
	Total	174	100.0

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

**Reliability Statistics**

Cronbach's Alpha	N of Items
.917	17

**APPENDIX 6: REGRESSION TABLES**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603 <sup>a</sup>	.364	.357	9.353

a. Predictors: (Constant), supervisor incivility, co-worker incivility

b. Dependent Variable: safety behaviour

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

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8519.587	2	4259.794	48.692	.000 <sup>b</sup>
	Residual	14872.505	170	87.485		
	Total	23392.092	172			

a. Dependent Variable: safety behaviour

b. Predictors: (Constant), supervisor incivility, co-worker incivility

### Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	81.656	2.056		39.714	.000		
co-worker 1 incivility	-.637	.177	-.345	-3.596	.000	.407	2.456
supervisor incivility	-.520	.168	-.297	-3.096	.002	.407	2.456

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.481 <sup>a</sup>	.232	.227	.134
2	.511 <sup>b</sup>	.261	.253	.132
3	.592 <sup>c</sup>	.351	.339	.124

a. Predictors: (Constant), t experienced incivility

b. Predictors: (Constant), t experienced incivility, ethical leadership

c. Predictors: (Constant), t experienced incivility, ethical leadership ,  
elsXincivility

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

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.929	1	.929	51.560	.000 <sup>b</sup>
	Residual	3.082	171	.018		
	Total	4.012	172			
2	Regression	1.048	2	.524	30.055	.000 <sup>c</sup>
	Residual	2.964	170	.017		
	Total	4.012	172			
3	Regression	1.407	3	.469	30.431	.000 <sup>d</sup>
	Residual	2.605	169	.015		
	Total	4.012	172			

a. Dependent Variable: t safety behaviour

b. Predictors: (Constant), t experienced incivility

c. Predictors: (Constant), t experienced incivility, ethical leadership

d. Predictors: (Constant), t experienced incivility, ethical leadership , elsXincivility

**Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
experienced incivility	-.455	.063	-.481	-7.181	.000	1.000	1.000
2 (Constant)	.337	.174		1.937	.054		
experienced incivility	-.445	.062	-.470	-7.120	.000	.996	1.004
ethical leadership	.008	.003	.172	2.608	.010	.996	1.004
3 (Constant)	.409	.164		2.492	.014		
experienced incivility	.379	.060	.401	6.289	.000	.945	1.058
ethical leadership	.009	.003	.181	2.911	.004	.995	1.005
elsXincivility	.053	.011	.307	4.827	.000	.949	1.054

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603 <sup>a</sup>	.364	.360	9.330
2	.690 <sup>b</sup>	.477	.470	8.487

a. Predictors: (Constant), experienced workplace incivility

b. Predictors: (Constant), experienced workplace incivility, safety climate

c. Dependent Variable: safety behaviour

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8508.107	1	8508.107	97.748	.000 <sup>b</sup>
	Residual	14883.986	171	87.041		
	Total	23392.092	172			
2	Regression	11148.038	2	5574.019	77.391	.000 <sup>c</sup>
	Residual	12244.054	170	72.024		
	Total	23392.092	172			

a. Dependent Variable: safety behaviour

b. Predictors: (Constant), experienced workplace incivility

c. Predictors: (Constant), experienced workplace incivility, safety climate

### Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF	
1	(Constant)	81.522	2.017		40.410	.000	77.539	85.504		
	experienced workplace incivility	-.577	.058	-.603	-9.887	.000	-.692	-.461	1.000	1.000
2	(Constant)	51.669	5.261		9.820	.000	41.283	62.055		
	experienced workplace incivility	-.362	.064	-.378	-5.665	.000	-.488	-.236	.691	1.448
	safety climate	1.053	.174	.404	6.054	.000	.710	1.396	.691	1.448